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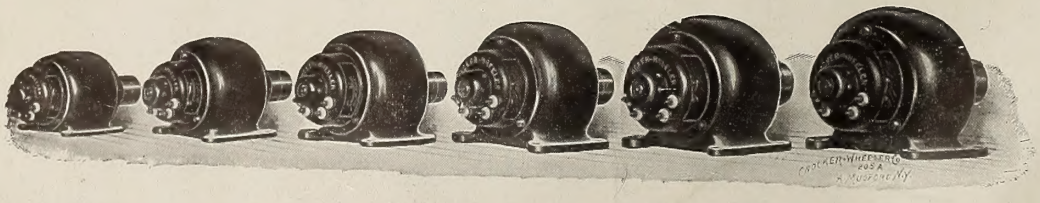
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Underwood Bill to the Senate.

IT is interesting to observe that the Underwood Tariff Bill, as reported to the United States Senate, after passing the Senate Finance Committee and the Senate Democratic Caucus, retains the principal provisions approved by the House of Representatives, and those particularly advocated by President Wilson, free raw wool and free sugar after May 1, 1916.

This means that the main parts of the Bill have been approved by the Democratic majority in the House and the Democratic majority in the Senate without any radical alterations being made.

The Senate Finance Committee greatly extended the free list, placing thereon cattle and wheat, the latter with a countervailing duty, reduced some rates, especially in the metal, wool and agricultural schedules; and made many changes in the administrative clauses of the Act, particularly those relating to the income tax.

After the Bill is debated in the Senate, which will take five or six weeks, it will go to a Conference Committee of the two houses. As Democratic Senators and Representatives will be in the majority on this Committee, and as they have already publicly expressed their approval of the Bill, it is reasonable to suppose that few vital changes will be made in it before it becomes law, which its supporters hope will be about September 1st.

Consequently, it appears that the United States is certain of a substantial general reduction of its tariff. How this reduction will affect Canada time will show, but we should remain clear on one point. The present tariff of the United States is nearly double that of Canada, and the new tariff, which is hailed with rejoicing by low tariff men and Free Traders, will still be considerably higher than the Canadian Customs tariff.

Declaring Contracts "Unreasonable."

A FREAKISH piece of legislature, designed for the interests of a class, has recently passed the Alberta Legislature and has aroused some demand for similar legislation in Saskatchewan. It is called "An Act Respecting Agreements for the Sale of Farm Machinery."

"Farm Machinery" is thus defined:

"Any and every implement and machine purchased by a farmer for use upon any farm, and without in any way restricting this meaning shall include all engines, threshing machines, steam plows, binders and mowers."

The breadth of the term leaves doubt as to the possible inclusion of pianos, organs, automobiles, motor trucks, bicycles, baby carriages and a host of other machines which might be "purchased by a farmer for use upon any farm."

The two extraordinary clauses in the Bill are: first, that no contract shall be binding upon a purchaser of farm machinery if a court or judge shall decide that it is "unreasonable;" and, second, the vendor must be responsible for all representations made by his agents.

This strange Act is a misguided attempt to escape from the lien note. No doubt in the past some unscrupulous dealers in implements or insurance have swindled farmers with obscurely worded agreements. Clauses

have been inserted in small print which have changed the meanings of contracts. The traditions of such sharp practice die hard in the country. They are more difficult to exorcise than the Dutchman's ghost. But it would be unjust to judge the implement and machine business by the few swindlers who have been connected with it as they have been connected with every other business. It would probably be accurate to say that ninety-five per cent. of the lien notes signed by farmers are paid without complaint, and that, in the majority of the cases in dispute, settlement is made outside of the courts.

The dangerous feature of this clause of the Act is that it goes to the opposite extreme. In seeking to protect the farmer, it opens the door for litigants who hope that the courts will declare agreements "unreasonable," and hence void.

By seeking to make the vendor wholly responsible for his agents, the Act attempts the impossible. How can a company, whose head office is in Toronto, be responsible for an unscrupulous agent operating in Saskatchewan or Alberta? The company can instruct the agent, can dismiss him if he violates those instructions, but its officers cannot check his every word and action. They must rely on agreements, and most of them warn purchasers against misrepresentation by inserting a clause in agreements warning purchasers that agents cannot exceed such agreements, or the specific authority delegated to them.

The majority of farmers recognize that the lien note is a convenience. If it did not exist, they would have to pay cash for their implements. If the lien notes can be declared "unreasonable" and void, manufacturers and dealers may be compelled to sell no implement except for cash or on good security.

High Rates on the Pacific.

SHIPPERS claim that the rates on ocean freight between Vancouver, B.C. and New Zealand are too high and also that, even while charging immoderate rates, the Union Company, which operates the service, cannot furnish the necessary space for cargo.

One shipper states that, three years ago, he sold a thousand feet of Oregon Pine at 69s. C. I. F. New Zealand. To-day the freight alone is 75s.

Two points must be considered; first, the Union Company have a contract from the New Zealand Government which will trouble possible competitors; and, secondly, the greater part of Canadian freight destined for New Zealand originates in Eastern Canada, and is carried by the New Zealand Shipping Company, which operates a line of boats between Montreal and New Zealand.

This company receive a subsidy from the Dominion Government and are at present threatening to discontinue their services to New Zealand if this subsidy is not increased. Complaints are made that the freight rates of the company are influenced too greatly by the shipping interests of New York, but, nevertheless, its boats carry the greater part of Canadian freight to New Zealand.

It seems strange that the New Zealand Shipping Company, which has secured most of the freight formerly sent via Vancouver, and which has been increasing its rates steadily, should be unwilling to continue its service unless it receives a heavier subsidy than it enjoys at present.

Before increasing or renewing this subsidy, the Government should require the company to justify its recent increase of freight rates, and also to show clearly what influence, if any, is exercised on these rates by the shipping companies of the United States.

In case the New Zealand Shipping Company discontinues its service, freight destined for New Zealand will go via Vancouver, unless a new company established a service from Eastern Canada.

The Union Company, as well as the New Zealand Shipping Company, should be asked to justify freight rate increases, and to show that they are in proportion to the higher cost of transportation.

The Loss of Exporting Pulpwood.

"CANADA exported in 1912 enough pulpwood to supply 54 mills of the average size operating in the country at present."

The above statement is taken from an excellent report which has just been issued by the Forestry Branch of the Department of the Interior. The report continues:

"For this quantity of raw material the owners received $6,695,833 at an average price of $6.82 a cord. Had this 980,868 cords of pulpwood been manufactured in the Dominion, it would have produced approximately 773,140 tons of pulp. The average price per ton of exported wood-pulp in 1912 was $17.10. This would give $13,220,684 as the value of the pulp that could have been manufactured in Canada. The actual price received was $6,695,833. The loss to the country (which would include profit to the manufacturer and the cost of converting the material into pulp) was thus $6,524,866. This cost of manufacture, in the form of wages, material, etc., is all a source of wealth to the country at large."

Canadians in 1912 lost about one dollar per capita through the exporting of pulpwood unmanufactured. As there were 48 mills actively engaged in manufacturing pulp in 1912, we could have kept 102 busy if no pulpwood had gone out of the country.

Fortunately, the pulpwood situation seems to be improving. According to the report, only 44.2 per cent. of the pulpwood cut in Canada in 1911 was manufactured into pulp in Canadian mills. In 1912, this percentage was increased to 46.9.

In dealing with the results of legislation on the subject the report says:

"The effect of legislation restricting the export of unmanufactured pulpwood is quite noticeable in Quebec. Laws prohibiting the export of raw pulpwood from Crown lands in that province came into force on September 1, 1910. In 1911 the export of raw pulpwood was reduced

by 142,864 cords. In 1912 the increased cut on both Crown and private lands somewhat obscured the effect of these laws. It is seen, however, that in 1911 Quebec exported 62.0 per cent. of the pulpwood cut, while in 1912 only 56.5 per cent. was sold out of the country in the unmanufactured state.

"A similar law was brought into force in New Brunswick on October 1, 1911, but so far this does not seem to have had the desired effect, although the percentage of raw pulpwood exported from that province has increased but little since 1911. British Columbia manufactures into pulp in her own mills all the pulpwood cut in the province.

"The exports from Nova Scotia increased considerably in 1912, although that province still manufactures over eighty per cent. of her pulpwood within the province.

"In Ontario, only pulpwood cut on privately owned lands can be exported unmanufactured. The early enforcement of this regulation has resulted in checking the export of raw material. The percentage of unmanufactured pulpwood exported has remained constant in the last two years. Production, manufacture and export, all showed decreases from 1911 to 1912 in this province."

The above serves as one more illustration of the folly of exporting raw materials and allowing foreign industries to reap the profits of manufacture and of sale of the finished products.

More Mixed Farming for West.

IN a recent issue, *Canadian Finance* devotes considerable attention to the improvement of western farming methods.

"It is not only in the northern and central sections of the Middle West that the better way is being sought," says that journal. "Striking progress is to be noted in southern sections hitherto giving almost full allegiance to King Wheat."

It also states that cattle raising is on the increase, and gives an illustration of one man bringing 8,000 young steers from Mexico. Last year, it points out, the district tributary to Lethbridge yielded over 600,000 pounds of wool, and this year expects nearly 1,000,000 pounds.

When manufacturers begin planting factories in western cities and towns, western farmers soon begin to raise live stock, poultry and to grow vegetables and fruit to supply the needs of the factory population.

McKinley and the Tariff.

CANADIANS who advocate a reduction in our tariff should consult the writings and speeches of the late William McKinley, Ex-president of the United States. They will find his opinion of Free Trade and low tariffs expressed as follows:

"A low tariff or no tariff has always increased the importation of foreign goods until our money ran out; multiplied our foreign obligations; produced a balance of trade against the country; supplanted the domestic producer and manufacturer; impaired the farmer's home market without improving his market abroad, undermined domestic prosperity, decreased the industries of the nation, diminished the value of nearly all our property and investments; and robbed labor of its just rewards. The lower the tariff the more wide-spread and aggravated have been these conditions which paralyze our progress and industries."

This is also an accurate description of conditions in Canada before the establishment of the National Policy. We have travelled far on a good road commercially, since we took the right turn to Protection, and we do not want to go back to the quicksand paths of Free Trade.

No Discrediting of Protection.

MEMBERS of the Canadian Manufacturers Association will do all in their power to prevent the doctrine of Protection from being discredited during the coming revision of the tariff. In all organizations there are a few who go to extremes. Half a dozen manufacturers out of the three thousand members of the Association may ask for more protection than they need. Their demands will be seized upon by the opponents of Protection, magnified beyond their original proportions, and used to illustrate arguments for tariff reduction.

The doctrine of Protection is a great doctrine. It has made Canada a nation—commercially independent and self-contained. It has built up her cities, towns and villages.

Protection should not be discredited by the indiscretion of the few. The vast majority of Canadian manufacturers have barely enough protection to enable them to meet competition. Many have not enough, but all should unite to strike a fair average, uphold the National Policy and secure a uniform and scientific revision of the Canadian tariff.

The Boast of "Andray"

IT is bitter truth that "Andray" Carnegie has been giving himself over to the sinful habit of boasting. "Escorted wherever he went by two French Gendarmes, Andrew Carnegie has enjoyed himself in Paris as he has never done before," says a Paris cable to the *Toronto World*.

"Without being prompted, he told the correspondents he was feeling fine, and then proceeded to conduct an interview with himself. The thing uppermost in his mind, since receiving his usual batch of morning cables, was the splendid import and export figures of United States trade. He emphasized this fact:

"'We have now got Canada's trade away from Great Britain and are selling Canada two-thirds against Britain's one-third.'"

When business is in the wind, "Andray's" tender and loyal memories of the kilts and porridge pots of his native heather are banished by the pleasant jingle of the siller running into his pockets.

Yet some Canadians want the Government to reduce our tariff against the United States, so that the Carnegies of that country can sell more goods in this country.

If they succeed, listen for the jubilant song of the Carnegies.

The Great Supporters of Protection.

WHAT the famous statesmen and economists of history have said in support of the doctrine of Protection, as against the doctrine of Free Trade, presents a series of powerful arguments which will be difficult to refute. These opinions have been collected by George B. Curtiss in his book, "The Industrial Development of Nations," which has just been published.

He begins with Edward III., who, "in 1331 invited John Kemp, a Flemish weaver, guaranteeing to him special protection, to set up cloth weaving in England; and Kemp came with servants and apprentices, both weavers, fullers, and dyers"; includes the distinguished administrators of Europe, and ends with a few of the more noted from the United States. The following selected list from these opinions should be interesting reading for those who are concerned with the fiscal systems of nations:

Frederick the Great, of Prussia: "The king protects and encourages manufacturers in every possible manner, especially by advancing large sums of money to assist them in carrying on their manufactures, animating them by rewards, and establishing magazines of wool in all the little towns, for the benefit of the small woollen manufacturer. If the king has greatly increased population by his encouragement of agriculture, he has advanced it as much, and perhaps more, by the great numbers of manufactures and trades of all kinds, which he has caused to be established, or to which he has given encouragement, at Berlin, at Potsdam, and in almost every city and town in his dominions."

Prince Bismarck, of Germany: "We must, therefore, shut our gates and take care that the German market, which is now being monopolized by foreign wares, shall be reserved for active industry."

Blanqui, speaking of Colbert, Minister of France: "Taken altogether it (Colbert's system) composes the finest politico-economic edifice ever created by any government. Alone among the ruins of the past it has remained standing, and towers now at its greatest height, notwithstanding the shock of revolution. He (Colbert) opened the way for the national labor in a manner at once wise and regular; and to his measures is due the fact that France ceased to be exclusively agricultural and became enriched by the new value given to her land and to the labor of her people."

Napoleon Bonaparte: "If a nation were made of adamant, Free Trade would grind it into powder."

Thiers, Minister of France: "I can understand that we might hesitate before undertaking to develop certain industries; but what I cannot understand is, that, when they are already developed, we should leave them to perish."

Joseph Chamberlain: "Do you think it better to cultivate the trade with your own people, or to let that go in order that you may keep the trade of those who are your competitors and rivals?"

George Washington: "However unimportant America may be considered at present, and however Britain may effect to despise her trade, there will assuredly come a day when this country will have some weight in the scale of empires."

Alexander Hamilton: "Not only the wealth but the independence and security of a country appear to be materially connected with the prosperity of manufactures."

Thomas Jefferson: "To cultivate peace; maintain commerce and navigation, to foster our fisheries, and protect manufactures adapted to our circumstances, etc., are the land-marks by which to guide ourselves in all our relations."

Daniel Webster: "That is the truest American policy which shall most usefully employ American capital and American labor, and best sustain the whole population. . . . Agriculture, commerce and manufactures will prosper together or languish together."

Horace Greeley: "Enlightened protection is emphatically the hope and stay of toiling millions over the whole face of the earth. . . . Let labor, therefore, with one mighty voice, demand adequate, stable protection, and a wider, deeper prosperity will soon irradiate the land, carrying independence, comfort, and joy to the dwelling alike of the farmer and artisan in every section of the country."

Henry Carey: "Manufactures are at once an evidence and a measure of civilization."

Abraham Lincoln: "I do not know much about the tariff, but I know this much, when we buy manufactured goods abroad we get the goods and the foreigner gets the money. When we buy the manufactured goods at home we get both the goods and the money."

William McKinley: "We lead all nations in agriculture; we lead all nations in mining; we lead all nations in manufacturing. These are the trophies which we bring after twenty-nine years of a protective tariff."

Waiting for Strength.

CONVICTED in the court of public opinion, the railways of Canada have stood for several years, until the judge can find an instrument for their correction. Playing the part of presiding judge, who must find this instrument is a puzzling occupation for the Dominion Railway Commission. Its quandary is similar to that of the judge in a famous trial where an Irishman had been found guilty of treason.

"I sentence you to be hanged," said the judge.

"Your Honor," asked the culprit, "Will you grant the last request of a dying man?"

"Short of sparing your life," replied the judge, "I will."

"I wish to name the tree on which I am to be hanged," said the Irishman; "some trees are luckier than others."

"That is reasonable," answered the judge, "name it."

"I prefer the gooseberry tree," said the Irishman.

"But," said His Honor, "it is not big enough."

"No," said the Irishman cheerfully, "but I am willing to wait till it grows."

Railways Discontinue Cartage.

ALTHOUGH the cancellation of cartage charges by the railways of Canada was expected, it is quite evident that the results of this action are not fully comprehended. Shippers will feel the strain immediately after October 1st, the date on which the tariffs will be cancelled. They will not only have to pay their own cartage charges, but they will also get worse service.

The cartage companies, as agents of the railways, co-operated with them in handling package freight; their interests were identical. The discontinuance of the cartage service means that this co-operation will disappear, and that the cartage companies, being independent, will look after their own interests.

Moreover, the railways chose the worst time of year to stop the service, as the movement of freight at that time is very heavy in anticipation of the close of navigation. It is the shippers' hope that the Board of Railway Commissioners will intervene to protect them against the inevitable congestion which will result from the railways' action.

We Want Technical Education Laws.

NOW that the report of the Royal Commission on Technical Education and Industrial Training is before the Government, manufacturers would like to see its principal provisions crystallized into legislation.

Canadian manufacturers are competing against employers of technically educated and industrially trained labor in the United States, Germany and Great Britain. The man who is technically trained is a factor in the industrial world, and the Customs Tariff will not protect Canadian manufacturers against him. Like must be pitted against like.

The technically trained employees of our British and foreign competitors are making the processes of manufacture more scientific; they are making administration and management more efficient and economical; and they are constantly exploring for that knowledge which will distance rivals in the industrial race.

Plants, money, administrative ability and materials are not sufficient to secure a place in markets if intelligent and skilled employees are lacking.

Taxation in St. John.

THE city of St. John, N.B., is experimenting with taxation. The council proposes to replace the present system with the Somer unit of valuation, by which certain lots are selected as the key for a block and other valuations scaled from this basis. The system has given satisfaction in Cleveland, Ohio. There is also an agitation for a gradual reduction of the tax on improvements. The idea that land should be taxed more and improvements less has transformed the assessment laws of such cities as Vancouver, Edmonton and Calgary, and is gaining thousands of supporters in the east. In Ontario, the demand for tax reform is insistent. The Maritime Provinces, apparently, are also determined to oppose the penalization of industry for the benefit of the land speculator.

Against All Employers.

MANUFACTURERS on the Pacific coast have suffered sorrowful introductions to that sinister organization, the "Industrial Workers of the World," or "I. W. W.", the short form betraying their cherished principle, "I won't work." The following statement of policy is taken from one of their many mushroom journals.

"The small cockroach capitalists are robbed as much by the big thieves as are the farmers.

"Our only problem is to organize the real wage workers into one big union, whether they are farm wage workers, or those working in mills, mines or forests. To hell with all the rest.

"The farmer robs the men who work for him, no matter if all the proceeds do not stay in his hands. He runs his farm for profit. This profit he gets from his wage slaves.

"We are at war with him as well as with all other capitalists, large and small. On with the fight. On to industrial freedom for all wage workers."

The graingrowers of the western provinces of Canada should notice that they are classed with manufacturers as capitalists.

The Industrial Workers of the World believe that industry should be captured and controlled by the working classes. Originality and executive ability are in their estimation barren qualities, bringing forth nothing of value. "He that produces nothing," says one of their numerous papers, "shall consume the same." Because, in the opinion of the I. W. W., the farmers and manufacturers, being employers of "wage slaves," produce nothing, they must get nothing.

Farmers and manufacturers should unite against this common enemy. When we think of them, it is remarkable how many objects are common to the farmers and manufacturers of Canada. They must unite to secure better service from the transportation companies, and before many years they will have to co-operate to crush such mischievous organizations as the Industrial Workers of the World.



VIEW OF HARBOR AT SYDNEY, C. B.

SYDNEY, C.B., AND ITS NEIGHBORS

By H. C. BURCHELL
Sydney Cement Company, Limited

THE city of Sydney, Cape Breton, has become one of Canada's most important industrial communities. The Dominion Iron and Steel Company's plant is a small city in itself. Fortunately visitors are admitted to the grounds both morning and afternoon of any business day and are shown over the entire length of the $35,000,000 dollar plant. It is usual to enter at the north end. Thus, one sees first the ore, then the various furnaces, mills and shops, until at the south end, two miles from the north end, are found the finished steel products.

The Dominion Coal Co., Ltd., have a plant in Sydney. It consists of a coal washer—just completed at a cost of $500,000; new shipping pier with most modern equipment in connection; lastly, the older piers which had alone been reputed the most efficient coal shipping docks in the world. Here thousands of cars of coal come down from the mines on the high level tracks, the contents are dumped into steamers lying alongside, the cars dropped to the low level tracks and returned for reloading. Thus, a train load of black diamonds finds its way into a steamer's hold in less time than it would take a man to shovel one ton by hand.

Below the coal piers, the east side of Sydney harbor is not used to any extent but the shore will afford excellent sites for industrial enterprises. Covering an area of 25 square miles, deep and well sheltered, the harbor affords safety to an immence amount of shipping.

On account of the cheapness of coal several companies find a profit in various lines they manufacture from the steel company's by-product and waste.

First of these is the Dominion Tar and Chemical Company, Ltd.—situated between the steel works proper and the coke ovens, which manufacture a variety of chemicals from crude tar. The tar is delivered from the coke ovens through a system of pipes. The Tar and Chemical Company have also a plant for creosoting timber, which was enlarged in 1912.

The Sydney Cement Company, Limited, are situated at the junction of the Intercolonial Railway and the Sydney and Louisburg Railway quite near the Sydney passenger station of the Intercolonial Railway. The Company have a plant which manufactures slag cement from the basic slag of the blast furnaces of the Dominion Iron and Steel Company, Limited. The capacity of the plant is five hundred barrels per day.

The Sydney Pressed Brick Co., Limited, are adjacent to the Sydney Cement Company. The Company manufacture a pressed brick, or artificial stone, from the same kind of slag that is used by the Sydney Cement Company, for the manufacture of cement. This is the only plant of its kind in America.

A different kind of slag, namely, the slag from the Bessemer furnaces, is used by the Cross Fertilizer Co., Limited. This Bessemer slag contains phosphorus, but it is ground finely and used as fertilizer.

Four miles from the fertilizer works is a thousand acre farm owned by the Fertilizer Experimental Farm, Ltd. Here one finds the most up-to-date methods in use and there is no doubt that when the enterprise, which is but newly started, is developed it will demonstrate the possibilities of Cape Breton farming.

Foundries near Business.

Sydney has two very active foundries situated close to the business centre.

The Sydney Foundry and Machine Works, Ltd., Pitt St., were established by Mr. James Clarke years ago and has become an important factor in the city's business life. Machine castings and iron bridge work are their principal lines.

Shaw & Mason, Ltd., George St., are also proprietors of large foundry and sheet metal works. The Company manufacture heating apparatus, kitchen furnishings and babbitt metal.

Sydney is a natural distributing point for a quarter of a million people in Cape Breton and Newfoundland. Over 80,000 people reside within a fifteen mile radius of the city. This includes nearly 20,000 industrial employees who receive approximately $18,000,000 in wages yearly. In Sydney, where the population is about 20,000, $40,000,000 is invested in industrial enterprises, which employ 5,000 men and pay in wages $4,100,000 annually. Thus, Sydney stands, among Canadian cities, fourth in amount of capital invested, and seventh in regard to total wages paid.



Workingmen's Homes at Sydney

The Wood-working Factories.

Along the Intercolonial Railway after it enters the city, there are three wood-working factories with lumber yards in connection. The first one is owned by Chappell Bros. & Co., Ltd., who have a branch at Glace Bay, a saw mill up Sydney River, another on the Mira River, and do an extensive contracting business in Sydney.

Another planing mill is owned by Rhodes Curry Co., Ltd., of Amherst. They also have a flourishing contracting department but do not manufacture lumber here.

Andrews Bros. operate the third factory close to Rhodes Curry Co., Ltd., and supply a number of local contractors.

On the harbor front Mr. Ronald Gillis operates another wood-working factory.

The car barns and electric plant of the Cape Breton Electric Co., Ltd., on Townsend street, form an important feature in Sydney. The electric generators have been replaced from time to time and the entire plant is strictly up-to-date.

Between this plant and the Cement works at the junction of the Intercolonial and the Sydney & Louisbourg Railways, the Carritte-Paterson Manufacturing Company of St. John, N.B., have a branch factory making the various kinds of roofing materials. This was, prior to December, 1912, the Saunderson Manufacturing Co., Ltd., one of Sydney's most successful industries.

One block west of the depot Lynch, Limited, have a brick building where they bake bread on a large scale. The Company have a branch at Stellarton nearly equal in size, the combined output is 5,000 loaves daily.

Among other local industries are four bottling factories, a grist and carding mill, a cigar factory and boat building shops.

Growth of Sydney.

Since 1899, when the population was 3,200, the City has grown rapidly. Large sums have been spent on new streets, water and sewer extensions and various other civic improvements. In 1910 a splendid high school was built and is doing very creditable work. This year two $30,000 common schools have been opened.

The City's area is 5.83 sq. miles or 3,730 acres. The water front, within the city limits, is 4 3-4 miles in length. Sydney has extended over such a large area in proportion to the population, that new comers are able to locate on improved thoroughfares instead of being obliged to build on undeveloped property.

The water service, sewerage, fire protection, electric lighting and power supply, telegraph, telephone and street railway service are all fully capable of filling the requirements of the increased population that is undoubtedly coming to Sydney.

It is no easy matter to meet the cost of the civic improvements while the growth is so rapid, and the City Council has granted generous inducements to new industries. Exempted property in Sydney now totals over $35,000,000 in value, of which the bulk will be assessable in 1929.

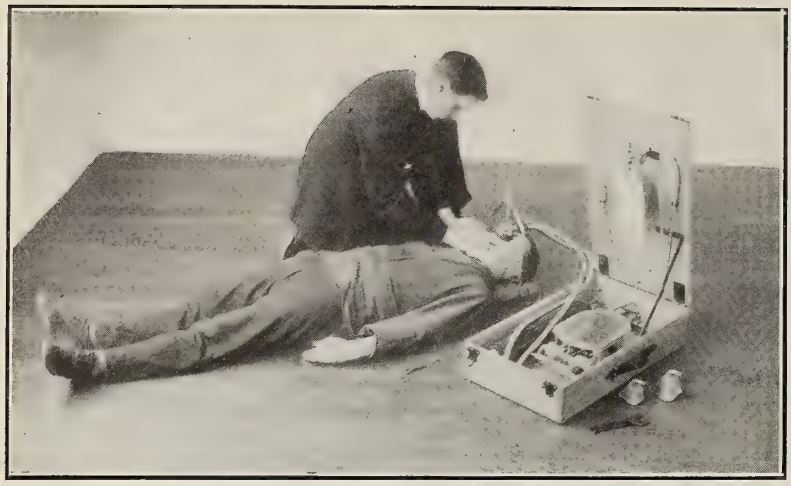
The Environs of Sydney.

Within easy access of Sydney there are points of interest that one cannot afford to overlook.

For instance, the town of Sydney Mines can be reached in an hour by ferry and tram. This is the centre of the Nova Scotia Steel & Coal Company's collieries and the same Company maintain an extensive steel manufacturing plant. It is prophesied that the Company are to spend $1,000,000 here on enlarging their plants and opening a new colliery.



Intercolonial Railway Station at Sydney



Pulmotor Being Used to Save Workmen from Gas Suffocation

By driving through Florence to Little Bras D'or it is but four miles from Sydney Mines to one of the Colonial Coal Company's mines. Here all the coal is manufactured into briquets and shipped by water or rail directly from the plant. About one mile from North Sydney, the Colonial Coal Company's other colliery is located on a spur of the I.R.C. At this point another briquetting plant is established, but converts only the slack into briquets. Briquets contain a mixture of slack coal, tar and common salt compressed into cakes suitable for general heating purposes. The Colonial Coal Company, Ltd., have the only briquetting plants in operation on this side of Banff, Alberta, although one is now being installed at Inverness.

Over the Sydney & Louisbourg Railway, or by suburban electric road, it is but an hour's run to the heart of the Dominion Coal Company's colliery district. The principal mine is situated at Glace Bay and is considered the best equipped in Canada. In all there are thirty coal mines in this belt and billions of tons in the ground. A number of these mines have been opened in recent years. At New Waterford a new chain of collieries have been put into operation since 1909 and, in place of woods, there is now a town of 6,000 inhabitants.

At Broughton, on the Sydney & Louisbourg Railway, the Cape Breton Coal, Iron & Railway Company, Ltd., have lately re-opened their colliery, which had been idle since 1904. They have a small town of their own at this place and are to build a shipping pier at Mira Bay—connecting with the mine by a railway which is now under construction.

Louisbourg and Vicinity.

Four miles from the mouth, which is at the Sydney & Louisbourg Crossing point, the Mira Brick Company's plant is situated, and farther up are several saw mills. The river glides through a first class farming and lumbering country.

Louisbourg is forty miles from Sydney by the railroad. The principal station of the Marconi Wireless Telegraph Company was constructed here in 1912, and forms a unique feature of Cape Breton's attraction. Prior to 1912 the business was handled from a station on the outskirts of Glace Bay.

At Louisbourg, the famous historic town, prominent in the days of strife between the English and French, there is here a large harbor, open the year round, and used by the Dominion Coal Company for shipping a portion of their output.

The Sydney & Louisbourg Railway, owned by the Dominion Coal Company, Ltd., has the finest roadbed of any Canadian railway. The traffic, chiefly in coal, is enormous, and one hundred pound rails are necessary to stand the strain.

The resources of Cape Breton are such as, in the course of development, make practically endless scenes of interest to the stranger and are giving rise to continuous prosperity to the people who are taking part in their development.

FREIGHT RATES OF OLD.

The following item, published by the Grand Trunk Railway in the *Toronto Globe*, of February 29th, 1864, will be of interest to transportation men.

"To meet the wishes of the merchants of Toronto, a large reduction has been made in the rates on merchandise shipped east and west of Toronto, taking effect on the 1st day of March next. A special freight tariff has been made for all stations between Toronto and Kingston and Sarnia. These rates include cartage in Toronto and London and are very considerably reduced from the existing tariff. Full particulars and copies of the new tariff of rates may be obtained on application to the General Western Freight Agent in the Company's new office, at the corner of Bay and Wellington Streets, Toronto, or at the freight office, Queen's Wharf.

"C. J. Brydges,
"Managing Director."

Montreal, February 27.

STONE-BRUISES CAUSE BLOW-OUTS.

No man should drive an automobile with careless regard to heavy shocks or bruises that the tire will receive.

When a car strikes an obstruction such as a car track or large stone when running at a high speed the blow often comes with such force that the inner fabric of the tire is bruised or weakened and sometimes even torn without the injury showing itself on the surface.

Perhaps, if the tire is not of the No-Rim-Cut variety, such as the Goodyear, the stone-bruise will cause a rim cut as well, and the result in either case will be blow-outs. After a tire has blown out twice, experts say it may be considered almost beyond repair.—Advt.



Taking Out a Man Overcome by Coal Gas

THE INDUSTRIES OF AMHERST, N.S.

By GEORGE T. DOUGLAS, CANADIAN CAR AND FOUNDRY CO., LTD.

This Important Manufacturing Town will Become a City. Its Industrial Development Has been Gratifying and the Future is Bright

THE industrial output of Amherst, N.S., for 1912 was the largest in its history. The manufacturing plants have all been running to their full capacity for the past year, and most of them have either added to their buildings or equipment to keep pace with orders taken in advance.

On account of this industrial development the population has increased by 1,500 in the past year, and with the coming of the Nova Scotia Carriage and Motor Works, a new piano factory and several smaller industries, the prospects for a greater increase for next year are very bright. Application has been made to the Provincial Government for a city charter.

The Canadian Car & Foundry Co., Limited, the leading industry in Amherst, have now the most self-contained and best equipped car plant in Canada, manufacturing practically everything for their own cars. The Company have made many large additions to the buildings and equipment in the past year, and have at present under construction a large building 500 feet long by 200 feet wide for the building of steel cars, bolsters and structural building steel. They are also erecting a large addition to their rolling mill, increasing their capacity to 2,000 tons of bar iron and steel per month. Also a department for manufacturing springs of all kinds is being installed. The following is a summary of the cars built by the Company in 1912: freight, 2,600; refrigerator, 350; snow plows, 20; passenger, baggage and diners, 80. In addition to building cars the Company supply other car plants and railways with large quantities of bar iron and steel, axles, wheels, castings, forgings, bolts, nuts, wood galvanizing and upholstery work. The total product for the past year was between $4,000,000 and $5,000,000. The average number of employees was 1,000, which will soon increase to 1,300 when the new buildings are completed and ready for operation. The average monthly wage and salary amounts to $90,000. The value of orders now booked is over $3,000,000, and will keep the shops in full operation for many months.

A Big Expansion.

The Malleable Iron Works, an important adjunct to the Canadian Car & Foundry Co., Limited, have shown an immense expansion. Three years ago this plant was contained in a 300-foot building, employing 50 men, with an output of 200 tons per month. They now have a building 1,200 feet long, employ 300 men and have an output of 800 to 1,000 tons per month, with a good prospect of increase.

The Rhodes Curry Co., Limited, have had the most successful year in their history. The volume of business for last year was about $1,500,000, being $400,000 in excess of the previous year. They are continually adding to their Amherst plant and are now able to take the largest contracts. The Company have a branch factory in Sydney and branch sales warehouses and lumber yards in Halifax and New Glasgow. They employ from 200 to 300 men in these places.

The Amherst Boot & Shoe Co., Ltd., another leading industry of the city, were established in Amherst forty-eight years ago and to-day are among the best dividend payers in the provinces, having branches in Halifax and Regina. The Company employ 300 hands and have fifteen travellers continually on the road. The business done last year was beyond the $1,000,000 mark and the prospects are still brighter for the present year. The yearly wage of the Company amounts to $100,000. They manufacture boots and shoes, making a specialty of heavy grades, such as hunting and mining boots.

The Hewson Pure Wool Textiles, Limited, successors to Hewson Woollen Mills, are another large industry of the town. The Company employ about 300 hands, the pay roll amounting to $90,000 annually. The product consists of tweeds, mackinaws, sweaters and knit goods. The total production per week amounts to 12,000 yards of cloth and 500 sweaters.

Engine Builders Busy.

The International Engineering Works, successors to the Robb Engineering Co., Limited, are now starting on one of the busiest seasons in its history. They manufacture engines and boilers of all kinds, also doing considerable engine, boiler and saw mill repairs, machine and casting work; employ about 300 men at the present time and will increase to 400 within the next year, and have a branch in South Framingham, Mass., which carries on an extensive business there.

The Amherst Foundry Co., Limited, manufacture sinks, bath tubs and other enamel ware, as well as furnaces and stoves and carry on both wholesale and retail trade in the city; 200 are employed.

Christie Bros. & Co., Limited, another old firm of Amherst, have enlarged their buildings lately, and are better equipped now to handle the manufacturing of the trunks, bags and caskets, in which they do an extensive business throughout Canada. They employ about 150 men.

The Oxford Worsted Company manufacture textiles, including towels and towelling, hammocks, carriage robes, motor scarfs and lap robes.

The Maritime Gypsum Company, located near Amherst, employ 100 men the whole year round. The Company have their own railways and wharves, and shipment of plaster is made direct to New York by steamer. The annual output of plaster is 75,000 tons, but their property alone is capable of producing 3,000,000 tons.

The Chignecto Power Company are one of the assets of Amherst. They generate power at the mouth of the mine and transmit it for manufacturing purposes. The economic idea underlying the project is that it is cheaper to create electric power at the mouth of the mine and transmit it by wire than to haul coal to the factory and there convert it into steam power. In Amherst all that is necessary for a new industry to do is to procure a building and machinery, attach the power supplied direct from Chignecto and the factory is in operation without delay.

New Industries for Amherst.

The two principal industries which will be added to the city next year are the Nova Scotia Carriage & Motor Co. and the Amherst Pianos, Limited. The former have erected a large four-storey building, 340 by 60 feet, for their plant. They manufacture carriages, sleighs, trucks, as well as automobiles. The Company employ 100 men.

The Amherst Pianos Limited, are now erecting a three-storey building, 220 by 60 feet, for the manufacture of pianos. This industry promises to be one of the best that Amherst has secured for some time.

Among the smaller industries of the city are the following: McLean, Barker Co., machine work and gasoline engines.

McLean Milling Co., roller process flour, heavy feed and general mill men.

Canadian Beverage Co., Amherst Mineral Springs, aerated waters of all kinds.

Amherst Red Stone Quarry, producing best red building stone in the Province.

Everett & Barron Co., manufacturers of mucilage, ink, shoe polish and blacking.

Batty Brick Stone Co.

Amherst may also be called the home of the largest lumber concerns in Nova Scotia, such as the Maple Leaf Lumber Co., Brooklyn Lumber, Sheet Harbour Lumber Co., Nova Scotia Lumber Co., Atlantic Lumber Co. All of these have their headquarters at Amherst and are controlled by Amherst citizens. Not only are immense quantities of raw lumber used in the various industries of the town, but the average yearly exports total more than 70,000,000 feet.

Coal has been also an important factor in the development and upbuilding of Amherst; within a radius of from six to twenty miles from the town are situated some of the best coal fields of the east.

PULPWOOD CONSUMPTION IN CANADA IN 1912

Increase of Nearly a Million Dollars Over 1911

A REPORT showing the consumption of pulpwood in Canada during 1912 has just been issued by the Forestry Branch of the Department of the Interior.

The statistics have been compiled from reports received from 48 pulp mills operating in Canada in 1911.

In addition to these active mills, reports were received from four mills under construction (one in Quebec, two in Ontario and one in British Columbia) and from eight mills that had discontinued the manufacture of wood-pulp. This makes a total of sixty pulp mills known to exist in Canada at the present time.

Some of the Eastern mills purchase pulpwood in the open market, but the majority of the mills cut from their own limits.

The forty-eight active mills reporting in 1912 consumed a total of 866,042 cords of straw material, valued at $5,215,582. The total cut of pulpwood in Canada in 1912 was 1,846,910 cords valued at $11,911,415. The remaining 980,866 cords—over half the total—were exported unmanufactured to the United States.

The following table shows the quantity, total value and average value per cord of the pulpwood used in each of the provinces for the years 1911 and 1912, and the number of active mills in each case:

Province	1911				1912			
	Wood Used	Value	Average Value per Cord	Number of Active Mills	Wood Used	Value	Average Value per Cord	Number of Active Mills
	Cords	$	$ c.		Cords	$	$ cts.	
Canada	672,288	4,338,024	6 45	47	866,042	$5,215,582	6 02	48
Quebec	390,426	2,516,683	6 45	23	578,855	3,386,705	5 85	24
Ontario	213,667	1,457,224	6 82	12	173,903	1,235,343	7 10	11
New Brunswick	45,824	251,858	5 50	4	52,041	287,060	5 52	4
British Columbia	150	1,140	7 60	1	35,067	193,265	5 51	2
Nova Scotia	22,221	111,119	5 00	7	26,176	113,209	4 32	7

The pulpwood consumption of 1912 showed an increase of 28.8 per cent over 1911. This resulted in an increased value of the industry of 20.2 per cent., in spite of the reduction of 43 cents per cord in the average price of raw material.

Quebec, Ontario and New Brunswick, in the order named, still lead the provinces in pulpwood consumption. British Columbia is rapidly increasing the manufacture of pulp, having in 1912 consumed 35,067 cords of material—half spruce and half hemlock—thus displacing Nova Scotia on the list. Every province increased its consumption with the exception of Ontario. The increases were: Quebec, 48.3 per cent., New Brunswick, 13.6 per cent., and Nova Scotia, 17.8 per cent. The decrease in Ontario was 18.6 per cent. The consumption in British Columbia was practically all increase, the 1911 consumption being a negligible quantity.

The average value per cord of pulpwood in Canada decreased by 43 cents. The decrease was noticeable in British Columbia, Quebec and Nova Scotia. On the other hand, the price increased quite noticeably in Ontario, where a large quantity of wood is purchased in the open market. The price in New Brunswick remained practically stationary.

Over half the pulpwood consumed in Canada in 1912 (57.6 per cent.) was used in the mechanical process for making ground wood pulp. The sulphite process was used in converting one-third of the total (33.0 per cent.). These two processes were thus used for 90.6 per cent. of the total. The remainder was divided between the sulphite process (7.7 per cent) and the soda process (1.6 per cent.) The use of the soda process decreased by 72.9 per cent., 37,449 tons less being manufactured by this process than in 1911. The sulphate process was used practically for the first time in Canada during 1912 by three mills in Quebec, utilizing 66,938 cords of pulpwood and producing at least 33,469 tons of air-dry pulp.



Typical Western Crowds Visiting the Train

THE MADE-IN-CANADA TRAIN

THERE is no more distinctly Canadian enterprise than the Made-in-Canada Exhibition Train under the direction of the Canadian Home Market Association, which has just completed its second tour of Manitoba, Saskatchewan and Alberta. It pictures in a graphic manner for the people of Canada the advantages which flow from the development of industrial life. This applies especially to Western Canada where the great majority of the people are engaged directly or indirectly in grain-growing and know comparatively little of the industrial life of the Dominion or what it means to the community. The train with its representative factory products brings home to the people that to be a great nation Canada must manufacture goods as well as grow grain. Thus the two great occupations of the people, agricultural and manufacturing, must be partners if the country is to reach its maximum development.



The Procession at Calgary

A Popular Attraction.

That western Canadians are keenly interested in what Canadian workmen are making it is only necessary to recall that at all points the arrival of the Made-in-Canada Train was greeted with an enthusiastic crowd, in support of official welcomes extended by Municipal Councils and Boards of Trade. The local band playing at the station as the train pulled in was of common occurrence, while at practically every place, outside of cities, a holiday was proclaimed covering the period the train was scheduled to remain. Farmers and their families frequently drove long distances to the nearest point on the train schedule. At Gull Lake nine people drove 75 miles to the train, having commenced the journey on the morning of the previous day, while at Bow Island a family of five came by buggy fifty miles from the Milk River district at the boundary. Ponoka sent circulars far and wide and when the train was in that town 284 conveyances by actual count had come from the country. No class of visitors was more keenly interested than farmers and their families. They did not hurry through the cars of exhibits, but took time for close inspection and asked many questions.

In most cases where the Made-in-Canada train stops the Board of Trade or other authority distributes literature giving full information on the district. The representatives on board the train, after reading this, send it to the heads of their firms, and in this way the local information is widely disseminated. In other cases the men on the train are given an automobile tour of the district, whose advantages are in this way emphasized.

The following statistics of the Made-in-Canada train show that it met with a most favorable reception in the West:

Total Attendance	231,000
Length of Trip	6,600 miles
Number of Stops	124
Time Taken	52 days
Route—Chiefly through Manitoba, Saskatchewan and Alberta.	
Number of Cars	14
Number of Exhibits	42
Representatives on Board	35

Every article in the Exhibition, including all engines, cars and other equipment, was made in Canada.

ENGLAND'S FOREIGN TRADE

By W. DEWART

This article was published in the "Canadian Illustrated News" in 1874, just before the political controversy which resulted in the adoption of the National Policy by Sir John A. Macdonald. At that time, England was so far ahead of the rest of the world in manufacturing that it was thought her position was guaranteed forever. Mr. Dewart prophesied that her competitors, Germany and the United States, for example, who believed in the protection of manufactures, would become dangerous rivals. It is interesting to notice how many of the statements made by Mr. Dewart in the following article have come true.

THE bad effect of Free-Trade on England's commerce is past concealment. The harvest of her foreign trade is evidently over. Free-Traders can no longer mislead public opinion with regard to the present depression. The Board of Trade returns for October are about the worst ever issued. England has deluged the world with her manufactures, and the cause of her depression is that the demand for them is on the decline. This decline is not a temporary thing, either. English capital and labor have been largely diverted into unproductive channels by the advocacy of free-trade principles. England will, in the end, pay dear for any temporary advantages derived from it. Free-trade in England is not only the cause of depression there, but of the depression which now exists in many other countries. The London *Telegraph* says the case is "of a nature to make the most determined optimist admit the fact of declining commerce and industry." Her exports were less in 1874 than in 1873, and less in 1875 than in 1874.

Industrial Investment.

England has invested enormous sums in ships and factories, but the factories are nearly idle and the ships have little to do; but the people want bread, and those who have bread want little, if any, of her manufactures, so the bread has to be paid for with gold. The product of English capital and labor is depreciating. This is what is the matter with England. She has been producing articles for which an effective profitable demand has nearly ceased. England gained a temporary advantage by having these things in advance of other nations, but the advantage is ceasing. The silk manufacturers were ruined by Free-Trade, and the machinery for that purpose became of little value. The manufacture of glass is also nearly driven from the country. American cotton manufacturers are even now sending cotton to England. English manufacturers cannot continue to import raw cotton and export manufactured cotton back to compete with American manufacturers in their own market. Hence a great part of the fixed capital of English manufacturers will be rendered unproductive.

England has great facilities for manufacturing, but trade being gone, the capital expended in creating these will be partially wasted. The time is coming when English manufacturers will be able to do no more than hold their home market in cotton goods. This will render a great deal of machinery unproductive; and many ships now employed in the cotton trade will have to find other employment. Her woollen manufactures will probably hold out longer. She is a great wool-producing country; but other countries are also becoming great wool producers, and so soon as they become able to manufacture their own wool they will need English goods no longer. Canada is importing less woollen goods every year. Our own manufacturers are rapidly superseding all others, notwithstanding all the disadvantages under which they are placed. The one thing which gives them the advantage is their better judgment regarding the class of goods required. Great fears are entertained about the coal mines of England becoming exhausted; but there is a much more immediate danger than this. The foreign demand for English goods will cease long before her supply of coal.

Prevented Land Reform.

The abolition of the Corn Laws was part of the Free-Trade policy. It was opposed by the nobility, though it was the one thing which has prevented reforms in the tenure of land. Had the Corn Laws not been abolished all or nearly all the large estates would have been divided up, sold, and under cultivation now. This is what would have been done to keep down the price of food. Laws would have been passed allowing the partition and sale of entailed estates. Food might not have risen much in price, for more land would have been cultivated.

But the importation of cheap food rendered agriculture unnecessary. English farms were depreciated in value by competition with cheap lands everywhere. Thus Free-Trade in corn has prevented Free-Trade in land. This caused a great emigration of agricultural laborers. This emigration was just in proportion to the imports of food. England's farms are in foreign countries, and her agricultural laborers have had to go to them. Had her farms been at home, her people might also have stayed at home.

The Land Question.

The question therefore is, does England contain enough land to feed all her people. I think there is enough, or nearly. England and Wales contain 35,264,000 acres of land. Out of this there are 31,000,000 fit for cultivation. But recent experiments in pumping and draining marshes have reduced this proportion materially, and one-twelfth would now be nearer the mark. This, therefore, would leave 32,324,334 acres fit for cultivation. But then, there is the land occupied by buildings, roads and railways. Allow 1,325,334 acres for these, though I consider this an excessive estimate, being over twenty-six times the area of London. Well now, what proportion of this land is cultivated? In England and Wales there were this year 3,324,388 acres of wheat, 2,509,598 acres of barley and 2,664,048 acres of oats. These are the principal crops, and making due allowance for all other crops, it is evident that between the land that is partially cultivated and that which is uncultivated there is room for a vast extension of agriculture. In his "Principles of Political Economy," page 166, J. S. Mill shows that in Flanders two and a half acres of land raise food for a man, his wife and three children. He also shows that this is inferior sandy soil, originally reclaimed from the sea, not to be compared to land in England. At this rate England and Wales have land enough to feed sixty-two millions of people. If we include Ireland and Scotland, where there is a much larger proportion of uncultivated land, it will make my argument much stronger. Thus England is drawing food from the ends of the earth, often at famine prices, while the best agricultural land in the world is lying waste at home. And the labor expended on the manufactures exchanged for this far exceeds the labor required to extract it from her own soil. To this extent, therefore, Free-Trade has diverted

English labor into unprofitable channels. If one-third of the capital invested in merchants' ships and manufacturing machinery was employed in agriculture, it would cause a much better and larger distribution of wealth and comfort and refinement than at present. England's wealth is badly distributed, and this is mainly due to Free-Trade. There is no nation in the world, there never was one, in which the distribution of wealth was more unequal. And this unequal distribution is one of the great questions of the day, and one of the great dangers of society. By discouraging agriculture, Free-Trade has kept the large estates undivided and perpetuated the rule of the aristocracy, and in commerce it has raised up a class of merchant princes and manufacturers. It did the same thing, long ago in Rome. After the people admitted corn free, and neglected their own agriculture, the inequality of wealth increased steadily. The time is near when men will cease to point to England in vindication of Free-Trade principles.

The *New York Shipping List*, a very ably conducted journal, alludes to the present depression in the following terms: "Many of England's best foreign customers for iron, coal, machinery and various manufactures, are said to have become independent of her." Are the ships and machinery employed in foreign trade worth as much as her land would be, if cultivated? I think not.

Development of Agriculture.

There are two causes which may lead to the extension of agriculture in England. One is a duty on corn as formerly. This is not likely. It is more likely to result from a decreasing foreign demand for English goods. Some foreign manufacturers are now not only underselling but excelling English manufacturers in the quality of their goods. This being the case, the purchasing power of English manufactures is becoming inadequate to supply the nation with imported food. Its manufactures are not purchasing its breadstuffs at the present time. For the last few years, large balances have had to be paid for in gold. This is what bankers call a foreign drain. A raise in the rate of the Bank of England is the expedient used to check a foreign drain. It checks the exportation of money. It means this, "If you leave your money with us a while longer you may have higher interest." These factories and their products will depreciate in value, and what should have been done at first will have to be done at last, namely, develop the agricultural resources of the country.

England protected her manufactures till they became developed. This was wrong. Her manufactures are now a drug in the market, while she pays the highest price in the world for food. Thus we see she buys dear and sells cheap. This is burning the candle at both ends. She can do this at present just because London is the great money market of the world. Money is sent to London from all parts of the world for investment. Hence there is always a great floating capital there. This deceives people. The capital is always there, but it is not the same capital, and it is not all owned there. This is more particularly the case since the late French and German war. Before that time Paris was a great money market. The German Government has large sums of money in London. Nearly all the French indemnity was paid in London and a great part is still there. It is this floating capital that enables England to go on, year after year, importing food and paying for the greater part of it in gold. England, with all her ships and factories, should be able to pay for her food with her manufactures, and that she cannot do so proves that her labor is unproductive. Free-Trade is the cause.

If the demand for English manufactures was not on the decline, it might be safe to go on depending on imported foods. But, as I have shown, England's best customers for coal, iron, machinery and other goods, are now nearly independent of her. To hold her trade in future, wages will have to come down; and reduced wages means diminished comforts for her laboring classes. The real problem is, how will the price of wages come down, while the price of food goes on increasing, as it is sure to do while the greater part of it has to be imported. Free-Trade was intended to elevate the laborer, but for the foregoing reasons it is sure to injure him.

I have said that England does not produce near all her own food, and that from the diminishing demands for her manufactures they have become insufficient to purchase it. Now, it remains to be shown how England pays for the excess of imports over exports. London is the world's banker. For example, it is said that Brigham Young has nine million dollars there on deposit. From all parts of the world money is sent to London. It is curious that money should be sent from countries where interest is high to a country where interest is low; but it is the case nevertheless. This is the reason. One can get more money in London on demand than in any other place, because the bank that has the largest deposits can furnish the largest loans on call. It need not be the bank that has the largest capital of its own either. English bankers lend these deposits to the British Government, to foreign governments, and to all parts of the world; and it is out of its profits as a banker in this way that it pays for the excess of imports over exports.

Suppose, for example, that Brigham Young has nine million dollars on deposit with some English bankers. This may be part of the money which is paying for the Suez Canal.

The World's Banker.

Whatever England makes in this way by being the world's banker, we know that her losses are also enormous. Take the Turkish bond holders, for example. It is not long since an association of foreign bond holders was formed, and the published statement revealed enormous losses. As I have shown, these losses are not all out of English capital. As yet, it is foreigners that are defaulters to English capitalists, but if the losses continue, English capitalists may yet become defaulters to foreign depositors. It is impossible to determine England's financial standing. And yet, she is the world's banker, and handles much more money than any other nation; but if a bank's deposits are numerous enough and large enough, it can go on doing business long after its own capital is all gone. Free-Trade is likely to turn out a very unprofitable experiment for England. England has discouraged her agriculture, and turned most of her labor to manufactures. These have so depreciated in value as not to purchase food enough, and she has to fall back on the precarious profits of banking to make up the deficiency. A great war might, and probably would, deprive England of this business, and break up this centre of capital, or transfer it to some other place. It would hurt her in two ways. First, it would make food scarce and dear by interrupting its importation. Secondly, it would deprive her of her banking business, out of which she now makes much of the money with which she pays for the food imported. This is a very sensitive and artificial state of industry. If England was engaged in a great war, capitalists would not have the same confidence in English bankers that they have now. But war is a thing which Free-Traders refuse to consider in questions of this kind. They tell us that arbitration is going to supersede war in future. It is, however, my opinion that the nations which neglect to consider this question will soon have to consider the questions of foreign intervention and servitude.

Real Protection.

England is protecting her manufactures, all the time, on a most gigantic scale, though Free-Traders do not appear to know it. She is keeping up naval stations out of the public purse to keep the way open for manufactures all over the

world. She goes to war with China and compels that nation to open her ports. She keeps an army in India to protect her trade. If India afforded English manufacturers no market, would the Government risk a war with that country? If it is not for its trade, India is of no use to England. She paid the Alabama claims for the privilege of allowing her people to sell the Southerners ships and munitions of war during the Rebellion. She has just paid the Khedive of Egypt twenty millions of dollars for the Suez Canal, to keep the way for her manufactures open to the East. This is protection to home manufactures, no matter under what name it goes. But it is a kind of protection rendered necessary by the evil effects of Free-Trade. The misapplication of English labor caused by Free-Trade has created a vast amount of fixed capital, which must be wasted unless things like these are done; and, no matter whether Free-Traders or Protectionists rule, this policy is now forced upon them.

The London correspondent of the *Globe* says with regard to the Suez Canal: "The bargain is a wise one, whatever may happen, though, pecuniarily it is a losing transaction. We shall lose the interest of four million pounds for some forty years." But "so important is the friendliness of Egypt to us that, no matter at what cost, it must be secured."

Now, England is paying all this to protect her manufactures. She has ceased to confine the circle to her own shores, but there is, nevertheless, a circle within which she employs protective measures. She is paying for this protection just as surely as when she levied duties on imports.

The time it paid England to protect her manufactures was while they were striving to supply the home market.

When the manufacturers become able to hold the home market against all comers, they need and ought to have no more protection. Further protection only creates an artificial state of industry.

High Prices for Food.

Measured in labor, England is paying higher prices for food than any other nation; and, measured by the same rule, she is getting much lower prices for her manufactures. This is the reason. Food is nowhere so cheap as where producers and consumers deal direct. But England is fed by a lot of dealers and middlemen. Thus the people pay dear for food and get little for manufactures. When we add the losses arising from bad debts on goods exported, it is apparent that a great quantity of labor goes for small quantities of food.

The net cash proceeds of her exports do not buy near so much food as the gross cash value of those exports would take out of her own soil, if employed in agriculture.

When one subject cheats another, it is an individual but not a national loss; but where a foreign merchant cheats a British manufacturer, it is both an individual and national loss. It diminishes the annual value of the land and labor of a country to that extent.

What England has to sell is now nearly always a drug in the market, and what she wants to buy is a prime necessary of life. It is bad to be depending on foreign manufacturers, but worse to be dependent on foreign food.

And no nation in the world can adopt Free-Trade without soon becoming dependent on one or other of these.

The price of food rises much faster than the price of manufactures when there is any fear of a scarcity.

When one goes to buy manufactured goods he can wait and higgle without serious danger, but when a scarcity of food is feared, produce dealers have to bid the prices at once that will fetch it.

It is wrong to import food, that may be advantageously produced at home, as manufactures; it is as wrong to crush home agriculture as home manufactures. In England Free-Trade crushes agriculture; in Canada, it would crush manufactures. This shows it doesn't suit in either place.

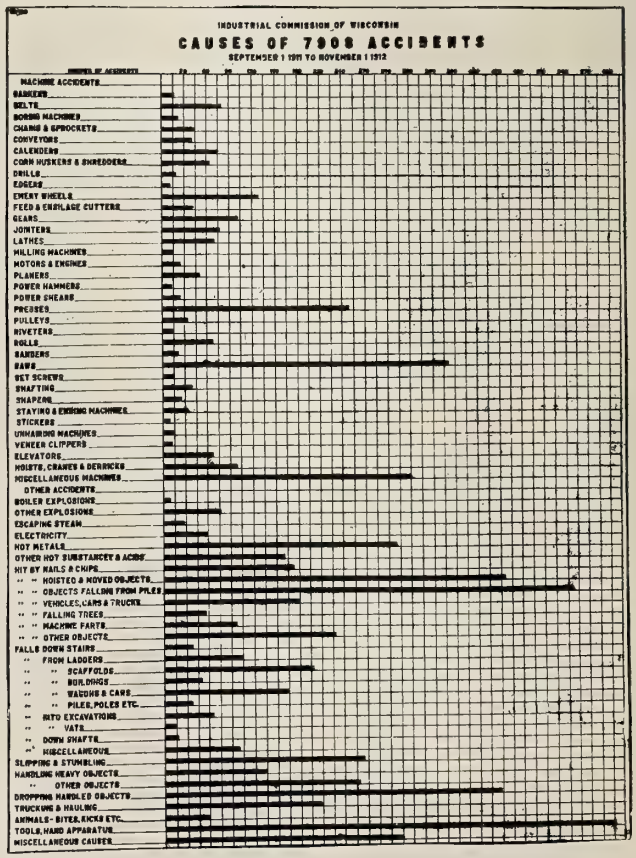
In France, agriculture and manufacture run on parallel lines, as it were. Both are equally protected. The consequence is that France is one of the greatest wheat growing countries in the world, and an exporter of food as well as manufactures. Her protection to agriculture has led to the partition, sale and cultivation of all the large estates, till there are now six millions of land owners in France. French economy would receive more notice if French politics were more settled. But, well or ill governed, France's wealth increases enormously. At the end of the late war, the greatest financiers of the world had no conception of her resources, and she is recovering strength at a rate that no other nation could, and this is because her industry is protective. France has few drugs in the market. There is a market for all, and a profit on all her products.

NEW FRENCH CANNERS' ACT.

The Canadian section of the British Chamber of Commerce, 9 rue des Pyramides, Paris, notifies proprietors of Canadian canning factories that a law has just been passed in France prohibiting the import of canned salmon and other fish, unless stamped on the top or bottom of the tin in characters of four millimetres. The law will probably be promulgated in a few days, and will come into force 12 months after promulgation. As it will apply to salmon imported and in stock after that date, it is advisable to have the necessary dies made at once.

A TWENTY-PAGE ADVERTISEMENT.

A twenty-page advertisement for a local store was published on July 4th by the *Leader*, Regina, Saskatchewan. This, we believe, is the largest advertisement published in a single issue of any Canadian newspaper.



The above table, published by the Industrial Commission of Wisconsin, shows the causes of 7,908 industrial accidents in the State of Wisconsin

CANADA VS. AUSTRALIA.

Comparison of Trade Figures.

The following comparison of the trade of Canada and Australia was made by Mr. D. H. Ross, the Canadian Trade Commissioner at Melbourne. Taking the Canadian figures for the fiscal year ended March 31, and the Australian figures for the year ended December 31, the imports, exports and total trade of the Dominion and the Commonwealth in 1911 and 1912 are shown, for comparative purposes, in the appended schedule:—

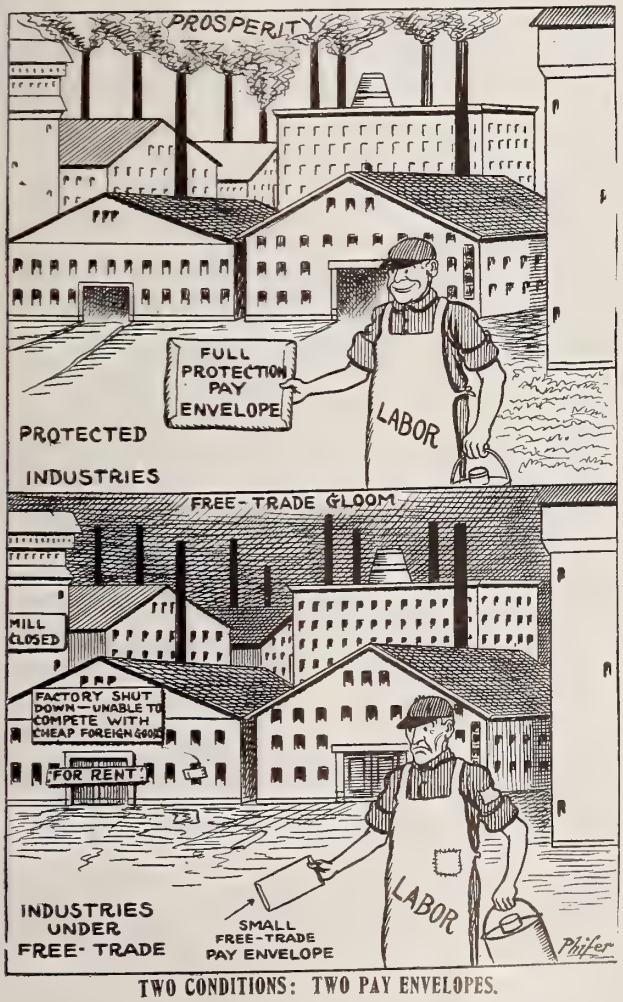
	Imports.	Exports.	Total Trade.
1911—Canada	$472,247,540	$297,196,365	$769,443,905
1911—Australia	325,461,991	386,283,773	711,745,764
1912—Canada	559,320,544	315,317,250	874,637,794
1912—Australia	379,557,801	383,136,787	762,694,588

The total trade of Canada in 1912 showed an expansion of $105,192,889 over 1911, while in the same period the trade of Australia increased by $50,948,824.

NEW INDUSTRIES FOR ST. JOHNS, QUEBEC.

Two new industries which are to be started at St. Johns, Que., in the course of the next six months, are The Imperial Tobacco Co., who are to erect a stripping factory to employ 500 hands, near the Singer Works, and The New York Architectural Terra Cotta Co., who will put up a Canadian plant at Iberville, a small town across the river from St. Johns.

An exhibition of motor farm implements and oil motors will be held at Tunis, Africa, in 1914.



TWO CONDITIONS: TWO PAY ENVELOPES.



"Demurrage as established by the railroads is a spur."

THE WORLD'S LUCK.

Once there was a man who said he would never do anything he hadn't done before. Fortunately, there were not many of him, so the world continued to advance just the same.

SUPPLY THE DEMAND.

The fireworks salesman could stir up a demand for ice-cream freezers at the North Pole, but the natural salesman takes them to the hot weather spots.

THE FIRST ESSENTIAL.

First conquer your home market, and the foreign market will probably be added to you.—*Andrew Carnegie.*

Experience is the child of Thought, and Thought is the child of Action. We cannot learn men from books.—*Disraeli.*

SOME PEOPLE'S IDEA.

The idea that some men have of competition is to wait until their rivals have secured some business and then try to take it away from them.

The Benedict-Proctor Company, silverware manufacturers, of Syracuse, N.Y., and who last winter opened a branch factory in Toronto, have purchased the plant, stock and buildings of the Defries-Woodman Company in Alliston for about $40,000. About 40 men will be employed and the building and staff enlarged next fall. Jewelry as well as silverware will be manufactured.

The Massachusetts Saw Works, of Springfield, Mass., are going to locate a branch factory in Hamilton, Ontario, which will be known as the Victor Saw Works, Ltd. They will make "Victor Hack Saws." The Hamilton plant will be operated as an entirely separate industry. They have leased a two story building, which will be thoroughly renovated, making it the most efficiently designed and thoroughly equipped Saw Works in the country. When running at its full capacity, this factory will employ about 75 hands, principally skilled mechanics.



The $750,000 Pulp Mill, Pulp Wood Conveyor and Pulp Storage Yard now being built in Hull, Quebec, by the E. B. Eddy Company, Limited

FACTORY BUILDING IN QUEBEC

By J. T. STIRRETT

TO the student of early Canadian history, it seems, on first thought, incongruous that the Province of Quebec should excel in manufacturing. Montreal, first a fort, where a few picturesque Frenchmen kept the Iroquoix at bay, then a harbor, where strange old sailing vessels lay at anchor, is now the most important manufacturing city in Canada. In the villages, where the single church, of cathedral size and architectural beauty, stood in the midst of smaller buildings, great factories have appeared, each surrounded by a cluster of workmen's homes. And the historic city itself, the citadel on the rock, now pours smoke from her numerous factory chimneys instead of belching it from the mouths of her guns.

And yet the transformation is not altogether strange, for those adventurous Frenchmen and Englishmen, who made the early history of Quebec, were, for the most part, traders, keen to secure merchandise. They, however, were forced to ship raw products out of Quebec to be manufactured. To-day Quebec still produces, but she manufactures as well.

Second in Canada.

According to the last census, the Province of Quebec stood second in manufacturing, the value of her manufactured products being $350,901,656, an increase of 121 per cent. over 1900. In 1911, there were 44 cities, with a population of 10,000 or over in Canada; 8 of these were in Quebec. The following summary shows the progress made in manufacturing by these eight cities between 1900 and 1910:

City.	Population in 1911.	Value of Products in 1900.	1910.	Increase per cent.
Montreal	470,480	$71,099,750	$166,296,972	133
Quebec	78,810	12,779,546	17,149,385	34
Maisonneuve .	18,684	6,008,780	20,813,774	246
Hull	18,222	3,182,050	7,259,301	128
Sherbrooke ..	16,405	2,252,293	3,934,510	74
Westmount ..	14,579	102,500	1,541,802	1,404
Three Rivers.	13,691	1,187,373	2,472,040	108
Lachine	10,699	2,909,847	6,295,716	116

What about the future? The building of new factories and the extension of the old factories is a good indication of the industrial state of a province. In this article the writer has gathered information in regard to the principal factories or additions to factories which are actually under construction at the present time in Quebec.

Montreal's Activity.

Montreal leads the cities of Canada in manufacturing, has gathered information in regard to the principal factories rival, in 1910.

Her present factory building shows that the city intends to fight for her leading position.

The Atlas Glass Works, Limited, are building a $200,000 plant, which will employ, when completed, about 750 people. General lines of glassware, such as fruit jars, chimneys, globes, table ware and druggists' supplies will be manufactured to the extent of about $1,500,000 annually.

The Canadian Carbonate Company, Limited, are erecting a factory costing $49,000 for the manufacture of carbonic acid gas. Fifteen employees will be engaged, and the estimated annual output will run between 1,000,000 and 2,000,000 pounds.

Other firms building new factories at present in Montreal are: The Dominion Straw Goods Company, the Canadian Wire Company, Limited; and the Canadian Rolling Mills, Limited, which is subsidiary to the Canadian Tube and Iron Company.

Additions to Montreal Factories.

Firms established in Montreal seem to be prosperous, judging by the extensive additions now being constructed in spite of the tightness of the money market.

Smart, Woods, Limited, are building a $60,000 addition for the manufacture of tents, awnings, tarpaulins, flags and coal sacks. It will employ 75 extra people and will increase the company's output by about $500,000.

The Phoenix Bridge and Iron Works, Limited, are spending about $30,000 on an addition, and about $25,000 for new machinery. Seventy-five extra employees will be engaged and the present output will be increased by about 20 per cent. No new articles will be manufactured.

Kingsbury Footwear Company, Limited, are building a $35,000 addition, 150 by 46 feet. The Company will not engage extra employees, as their intention in erecting the addition is to prevent congestion. One of the greatest additions now under way is that of John W. Peck and Company, Limited. It will cost $200,000, will bring the present staff of 900 up to 1,800 and will double the company's output of clothing, shirts, furs, and caps.

Miller Brothers and Sons, Limited, are repairing their factory and replacing the parts destroyed by fire last March.

The Martin-Seymour Company, Limited, are just completing an addition to their factory for the purpose of manufacturing varnishes, japans, and driers. It will cost $20,000 and will increase the annual output by $50,000 annually. Fifteen extra employees will be engaged.

Other Montreal firms who have additions under way are: Walter Baker and Company, Limited; The Robert Mitchell Company, Limited; the Imperial Tobacco Company of Canada, Limited, and the Rolland Paper Company, Limited.

In Quebec City.

The old city of Quebec is as busy building factories as some of her modern rivals. The Rock City Tobacco Company are erecting an extension, 150 by 40 feet, costing $30,000. About 300 extra employees will be engaged and the output will be increased to about 1,000,000 pounds of tobacco annually. The J. L. Morency Company are building a $25,000 extension which will require 15 extra employees in the manufacture of folding paper boxes. The Cement Products Company, of Canada, Limited, are still working on their new plant, the annual output of which is now about $150,000. The Citadel Brick and Paving Block Company, Limited, whose new plant has been in operation only six months, are already building an extension consisting of a large, German continuous kiln, 250 by 75 feet. When this extension is completed, the total cost of the plant will be about $200,000. It will employ 50 people and will manufacture about $200,000 worth of brick annually.



Views of the Excavation, Deepening and Construction Work on the New Hydro-Electric Power Plant of the E. B. Eddy Company, Limited, at Hull, Quebec

Price Brothers and Company, Limited, are also building an addition to their factory

E. B. Eddy Company in Hull.

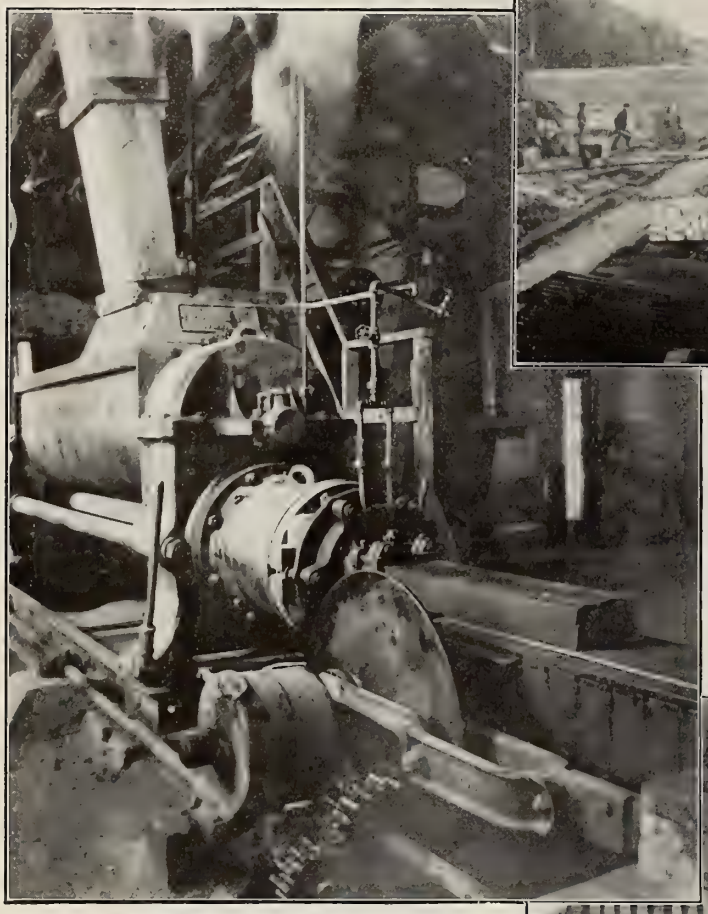
The only important factory building now under way in Hull is that of the E. B. Eddy Company, Limited, who are constructing a new power house and pulp mill at a cost of about $750,000. When the new power house is finished the Company's house power will be increased from 8,500 to between 16,000 and 18,000. The water power is being converted into a hydro-electric system. They are also deepening and enlarging the fore bays and intakes of their plant, and increasing their draft tubes. The new buildings will be used to manufacture ground wood, and wood and paper products.

VIEWS OF THE PLANT NOW BEING COMPLETED IN QUEBEC CITY BY THE CITADEL BRICK AND PAVING BLOCK COMPANY

increasing the annual output by about 27,000 tons and employing about 300 extra workers. As the company employ at present from 1,600 to 1,800, and, in busy seasons, from 1,800 to 2,000, the present extension to the plant will be of considerable additional benefit to the inhabitants of Hull, whose prosperity is closely connected with that of the Company.



One of the Round Kilns



Brick Machines in Operation

The General Chemical Produce and Explosive Company, Limited, are just completing a $20,000 plant in Three Rivers, which will employ about 700 men.

The Wayagamock Pulp and Paper Company, Limited, are erecting buildings and equipment for an additional paper machine, making three in operation. The Wabasso Cotton Company, Limited, are adding a thousand loom mill for making fine cotton goods; and Girard and Godin, coffin manufacturers and silver platers, are constructing a $20,000 addition to their factory.

Great Plant for Varennes.

The Mount Royal Brick Company, Limited, are building what they claim to be one of the largest brick plants in the world at Mount Royal, two miles east of Varennes, and four miles west of Vercheres, on the St. Lawrence River.

The Acme Clothing Company are building a $15,000 factory at Sherbrooke. They have agreed with the city to pay $50,000 in wages during the first two years of operation.

The Panther Rubber Company, a branch of the Elwell Rubber Company of Stoughton, Mass., have purchased a building and are spending $50,000 in repairs and machinery. They will employ 50 people.

Preliminary work is being done in Sherbrooke by the Canadian Connecticut Cotton Mills Company for their $250,000 factory, which they hope will be in operation by January next. They will manufacture cotton fabric for automobile tires and a dryer felt used in paper mills.

In Smaller Places.

New factories and factory extensions are under way in many of the small towns and villages of the Province. Among these may be mentioned the new mills which the Donacona Paper Company, Limited, are building at Donacona, Quebec; and the new factory of the St. Lawrence Pulp and Paper Company, Limited, which is being erected at Grand Pabos.



Setting Bricks

Sorel Iron Works, Limited, Sorel, Quebec, are moving their plant to Maisonneuve and will add to their present business of making boilers, engines, etc., by establishing a department to manufacture automobiles. The new name of the Company will be "Oxford Motor Cars and Foundries, Limited."

FINANCING THE PROMOTION OF NEW INDUSTRIAL COMPANIES IN CANADA

By H. M. P. ECKARDT

IN the course of Sir Edmund Walker's evidence before the Banking and Commerce Committee at Ottawa, Hon. Mr. White, the Finance Minister, asked him if it was good banking to advance money on securities of new enterprises pending the sale of the bonds. Sir Edmund is quoted as replying, "It is quite proper; in fact, the industries could not be established unless this were done."

Sometimes complaints are made by parties in the smaller towns to the effect that the funds belonging to their communities are drained away to the monetary centres and there used as loans to underwriters, promoters and others engaged in the practice of high finance. It would be well if the fact were remembered that many of the large factories or industrials located in suburban districts and country towns could not have been built unless the facilities for financing the underwriting operations were available.

Mr. White's question indicates that there is some difference of opinion among bankers as to whether the chartered banks should engage extensively, in this way, in the promotion of new industrial companies. Some of the banks are admittedly old-fashioned in their views of the matter. They will not enter freely into the business of underwriting; and probably a few will not join underwriting syndicates at all. It is quite clear that the notion that banks and other underwriters make fat fees or commissions, without risk or trouble, through underwriting new issues of industrial securities, is erroneous. In numerous instances the fees are well earned.

When a bank participates in the flotation of a large issue of this kind, and the securities are all taken up at once by the public, it, in company with the other underwriters, receives the agreed-upon commission, without being under obligation to take up any of the securities. But even in that case the bank will likely be obliged to make loans to brokers on the security of the newly-issued bonds. And if the bank has the account of the promoters of the enterprise, it will most likely be required to make extensive loans to them prior to the public flotation. Some portion or part of these loans would remain in the books after the flotation. This is what may be expected even when the flotation is entirely successful. Circumstances are not so comfortable for the bank when the issue is only a partial success; and they may be decidedly uncomfortable when the flotation proves to be a flat failure. When the public does not take the securities, the bank, as one of the underwriters, must take its proportion of the unsold stuff; it may have to make loans to other underwriters to enable them to take up their loads also. It is to be remembered that when a broker or other financier enters an underwriting syndicate, he does not usually contemplate putting any of his own funds or capital into the venture, even if the flotation proves to be a failure. He will count upon borrowing the requisite amount from his bankers; and he will perhaps expect the bank to carry the loan until the syndicate succeeds in finally disposing of the issue. If the stuff is very slow of sale, the bank may have the underwriters' loans on its hands for long terms. They will not perhaps offer to reduce the loans—except as the securities are sold—and if the banker suggests reductions they may not receive his suggestion kindly or warmly.

So one may see that when a bank takes an active part in financing one new promotion after another, it will find that an increasing amount of its liquid resources is temporarily locked up. So far as liquidity is concerned, a loan to a broker on a particular issue of securities to enable him to take up a block not taken by the public, is not to be compared to a loan to the same broker on a well-assorted lot of active stocks. Thus, through the flotation of one new company the bank may find itself left with slow loans amounting to four or five hundred thousand dollars; through the flotation of a second company, further slow loans would be in effect; and if a third and a fourth flotation followed in a short time, two million or more of funds might be locked up in this way.

Such a conversion of the quick assets might prove inconvenient or dangerous, especially during a period in which merchants, manufacturers, farmers and others were clamoring for short-date loans and discounts to enable them to carry on their business. This explains why, in periods of dear or tight money such as Canada has been experiencing recently, it is comparatively difficult to arrange for the financing of new industrial companies. The demand for commercial loans and discounts is so strong and insistent that the bankers will not readily consent to undertake anything that may prove slow or a lock-up. Hence in such periods the promoters of new companies are required to make the terms on which the public are invited to subscribe so attractive that there will be little danger of a failure to respond. This of course means the issue of securities at high rates of interest or at low prices, and when the flotation is thus made on terms considered specially attractive to the investment public, it may mean that the interest or preferred dividend charge to which the issuing company is subjected, is dangerously large.

Danger for Deposits.

As the business of underwriting industrial issues necessitates the extensive engagement of funds in loans and investments which cannot be regarded as quick or liquid assets, it seems that a chartered or private bank undertaking it on any important scale should have special capital or funds for the purpose. As explained in the foregoing text, there are grave objections to the use for this purpose of deposits which are practically payable on demand. Perhaps there is no country in the world where the large banks have taken such an extensive part in financing the promotion of new industrial companies as in Germany. In the article on "German Banks and Manufacturers," published in INDUSTRIAL CANADA, January, 1913, the methods used by these banks in facilitating the overseas trade of their industrial customers were discussed. This special activity of theirs in encouraging the export trade of German manufacturers is largely the outcome of their policy of interesting themselves specially in promoting new industrial organizations and consolidations of existing organizations.

One might say that the important industrial concerns in Germany are divided into groups, each group being financed and largely controlled by one or other of the great banks. There are six of these so-called great banks in Berlin, the Deutsche Bank, Disconto Gesellschaft, Dresdner Bank, Handelsgesellschaft, A. Schaaffhausen'scher Bankverein and Darmstädter Bank. Each one of these banks has its group of affiliated industrial companies. In his book, "The German Great Banks and Their Concentration," published in 1911, Dr. J. Riesser states that the six banks here mentioned act as fiscal

agents for 1,019 industrial companies. The Deutsche Bank has roundly one-fourth of the entire number, or 250 companies, on its list; and the remaining 769 companies are divided among the other five banks.

Specialize in Industries.

The various banks appear to specialize in industries. Thus the Deutsche Bank and the Disconto-Gesellschaft have specialized in electrical companies and railway companies; the Darmstädter Bank has specialized in breweries and tramways; and the Berliner Handelsgesellschaft in the heavy industries, such as iron and other metals. The connections between an industrial company and the bank with which it is affiliated are closer and more intimate than those prevailing between banks and industrial companies in this country. The big German bank may take a leading part in financing a consolidation of industries. Its officials will make a laborious investigation of the affairs of the several units to be brought into the consolidation and into the matter of future prospects. Results of such investigation being satisfactory, the bank arranges the details of the issues of securities, perhaps inviting other banks to participate in the operation. It distributes the securities as far as possible among the clients of its numerous agencies and branches. The agents get commissions on all bonds, etc., placed by them.

It will be seen that under this method of financing promotions the bank takes a heavy measure of responsibility for the successful operation of the new company. To its customers and depositors it says in effect: "We have examined this company's affairs and we recommend the purchase of its securities." Also the bank makes loans to its customers, at the head office and branches, to enable them to take up the securities.

Because of the special responsibilities thus incurred by it the bank will sooner or later insist on the appointment of two or more of its directors to the supervisory council of the industrial company. And the text-book says that occasionally some captains of industry are appointed as members of the supervisory council of the bank. But, as a rule, the bank directors serving on the company's council exercise the greater measure of control; the appointment of the captain of industry to the bank council is more in the nature of a compliment. Now these bank supervisors give special attention to the company's financing. They also interest themselves very largely in the disposal of its products. The bank has a similar control over a number of other industrial companies which perhaps use the products of this particular company as raw materials. Thus the one set of controlled companies are required to buy their materials from the other controlled companies.

The Bank's Position.

One can see from this description that under the German system the bank often acts, virtually, in the dual capacity of buyer and seller; and it might be imagined that on occasions there would be openings for disputes as to whether the prices fixed were fair to both of the companies concerned.

The connection between the bank and the company being so intimate, the latter does not usually have much trouble in financing. When an extension of plant is decided upon, the account at the bank is heavily overdrawn. And when the overdraft reaches an uncomfortable size the bank will arrange details of an issue of new securities to pay off its advance. The current accounts of industrial companies in Germany are quite commonly used for this purpose of making advances for improvements or extensions, with the understanding that such advances are to be liquidated through security issues handled by the bank.

It will be seen that the German banks are thus in the habit of locking up their funds quite extensively in financing their industrial customers. However, they do not conduct these operations on deposits such as the Canadian banks hold. In the first place the banks in Germany have very large capitals—the Deutsche Bank has $50,000,000 capital and over $25,000,000 surplus; and each of the others have capital and surplus of from $45,000,000 to $60,000,000. Also each bank has a group of smaller banks affiliated with it, and these smaller banks give support in the matter of financing industrial concerns. Again, many of the deposits of the German banks are giro accounts, in which a certain large balance must be carried at all times as a condition of receiving the right to transfer and receive funds free of charge to and from all banking points in Germany. This makes the deposit fund fixed or permanent to a considerable extent. In spite of all these circumstances, their policy in regard to financing new industrial concerns occasionally brings the German banks into troublesome waters—witness their experiences in March, 1913, when they had to offer 8 and 9 per cent. interest in New York for funds to tide them over the quarterly settlements.

CANADA'S INDUSTRIAL GROWTH.

The following comparison, compiled by the *Monetary Times*, shows how Canada's industrial growth has exceeded that of the United States during the past ten years:

CANADA.

	1900	1910	Inc. %
Industrial establishments	14,650	19,218	31
Capital	$446,916,487	$1,247,583,609	179
Wages	89,573,204	197,228,701	120
Materials	266,527,858	601,509,018	109
Products	481,053,375	1,165,975,639	142

UNITED STATES.

	1899.	1909.	Inc. %
Industrial establishments	207,514	268,491	28
Capital	$8,975,000,000	$18,428,000,000	105
Wages	2,608,000,000	3,427,000,000	31
Materials	6,575,000,000	12,141,000,000	84
Products	11,406,000,000	20,672,000,000	80

One man uses a stream to fish in; another man makes it turn a sawmill.

"Everybody engaged in industries and industrial production is a workman. I do not care whether he wears a workman's jacket or a black coat."—*Sir William H. Lever.*

HAMILTON CENTENNIAL.

The Hamilton Centennial Industrial Exhibition will be held in Hamilton from August 11 to August 16.

Members of the Hamilton Branch of the Association have made extensive preparations to ensure the success of this exhibition and, at this date, there is no doubt that their efforts will be successful. Mr. H. J. Waddie, of the Canadian Drawn Steel Co., Limited, is Chairman of the Committee which has charge of the arrangements.

As the sum of $150,000 has been spent on their exhibits by the manufacturers of Hamilton, and as the Committee have made provision for a large program of attractions, the Exhibition is certain of the success it deserves.

HOW TO PREVENT FIRES

Every Rule Following is Based on the Experience of a Recent Fire Investigated by the National Fire Protection Association of the United States

ALL stair and elevator shafts should be ventilated by ordinary thin glass windows opening outside, or by thin glass skylight protected by wire netting; the skylight may have a wired glass top with thin glass sides.

The reliability of fire doors at stair and elevator shafts, fire walls or similar openings, is seriously impaired by the introduction of wired glass panels into their construction.

No kalamein or other type of fire door which has not withstood successfully a fire test for at least one hour at approximately 2,000 degrees Fahrenheit should be approved for use where fire doors are required in connection with insurance or municipal regulations. Moreover, no approved fire door should be mounted in a combustible frame.

Fireproof floors should be made more nearly waterproof and be scuppered or otherwise arranged to drain readily.

All stocks or combustible material should be kept a reasonable distance from exposed steel roller curtains or wired glass windows, as the radiated heat will ignite them. Where a fire-resistive building is exposed by other burning buildings, even if the openings therein are protected, a close watch should be kept on the interior to prevent radiated heat from igniting combustible material contained therein. Stocks of a damageable nature should never rest on the concrete floor itself, but should be raised a few inches on skids to allow a free passage of water.

Pipes constructed of light sheet metal are entirely inadequate to withstand grease flames which frequently occur in the ventilating systems of cooking ranges. The greasy vapors from all cooking appliances should be conveyed to flues or pipes constructed no less substantially than the brick flues or heavy iron stacks of steam boilers.

Fuel should never be allowed to accumulate in front of the fire box of a boiler.

Gas jets should always be provided with wire bonnets to prevent the flame coming in contact with combustible material.

It seems as if the insidious properties of the vapors from gasolene would never be recognized by many thoughtless persons.

Gasolene gas machines having inside carburetors, are regarded as more dangerous than those having outside carburetors, owing to the fact that they introduce gasolene in liquid form and manufacture gas inside the building.

Wherever oily waste is used, standard waste cans should be provided.

Open torches offer a serious hazard, and their use should be discouraged.

Overalls and workmen's clothes should either be hung on a non-combustible wall, or placed in a well ventilated metal clothes closet.

Sprinkler alarm valves are a very necessary adjunct to efficient watchman's service.

Considerable trouble is experienced by outside lever alarm valves. They should all be replaced with approved type of alarm valves.

Sprinkler systems subject to freezing temperatures should be provided with a dry valve.

Great vigilance should be maintained while any portion of a sprinkler system is out of commission. In making repairs, as small a portion as possible should be cut off. If the whole system must be shut off for any length of time, a man should be stationed at the main valve, and hose laid about the plant for emergency use.

The successful operation of automatic sprinklers, given ample supplies under suitable pressure, depends upon the careful manner in which the system has been installed and the integrity of its maintenance.

It is preferable to place sprinklers under wide shelves, etc. The storage of material on them may render valueless the slated construction, designed to afford water from the sprinklers above to pass through.

Concealed spaces are always a detriment to the best results from automatic sprinkler protection. Where such conditions prevail, the sheathing or plastering should be kept perfectly tight.

IMMIGRATION AGENT AT MONTREAL.

Mr. J. A. Mitchell, of Montreal, has been appointed by the Dominion Government as labor agent officer, to take charge of labor affairs for the Department of Immigration throughout the Province of Quebec.

WHERE TO LOCATE.

Get near the densest traffic. A corner is a beacon-light for business.

QUALITY ALWAYS TELLS.

Good advertising may sell a bad article for a little time. A good article advertises itself all the time. Good advertising of a good article will build up a big business.

WHAT AN ADVERTISEMENT IS.

An advertisement is a mental shadow of a man—the man who wrote the advertisement.—*Sheldon.*

IF.

If women only bought what they set out to buy there would be few drapery stores outside the bankruptcy court.

A SOLID FACT.

The more an employee wants to get on, the more likely is he to help the business on.

The enterprising man beats the cautious man.

BE INDIVIDUAL.

Run your business your own way, don't copy others, express yourself.



By J. E. WALSH

AFTER eight days, the Dominion Railway Commission, at its recent sitting, found that further time would be necessary for Government counsel to prepare exhibits based upon figures produced by the C.N.R. Government counsel presented elaborate exhibits disclosing the fact that the earnings of railways west of Port Arthur were greater than the earnings east.

The Board submitted the following list of questions at the close of the recent hearing in the western freight rates case, which was again adjourned:

(1) Whether or not stations should be placed on the same rate basis, in so far as general merchandise rates are concerned, irrespective of density of traffic in a given district?

(2) Whether or not distributing points, irrespective of population or business, should be entitled to similar commodity rates (*i.e.*, in respect of distance or rate basis, irrespective of density of traffic)?

(3) Whether or not all stations at common distances from distributing centres from which freight moves at commodity rates should be on the same basis in respect of distance and rates?

(4) Whether rates should now be fixed in the Western Provinces on the assumption of a sufficient existing railway mileage to enable the grain crop to be properly carried, and affording lands settled, or fit for settlement, with railway facilities within a reasonable distance, or whether rates should be fixed on such a basis that will encourage further development?

(5) Whether or not rates should be based on the traffic and returns of the Canadian Pacific Railway irrespective of the density and diversity of traffic and returns of the Canadian Northern and Grand Trunk Pacific Railway Companies?

(6) Generally, on what principles do you desire the freight rates to be considered?

The next sitting will be in September.

Canadian railways have given notice that on October 1st, 1913, all their cartage tariffs will be cancelled and shippers and consignees must make their own cartage arrangements.

It is already evident that the Zone System adopted by the United States Parcel Post is unsatisfactory and operates to the advantage of the railroads. Shippers are asking for a flat rate of so much per mile. They even urge that a bulk rate be established which would allow shippers to drive a dray load of packages on the scales and pay so much a pound or ton, pointing out that in the long run short freights would balance long freights.

There is considerable complaint from the grain shippers of Buffalo and the lumber shippers of Tonawanda that only a part of the Erie Canal is as yet navigable; that they are consequently forced to pay a rail rate. The deepening of the Welland Canal has not aroused much apprehension among those who use the Erie Canal because they believe that it will have little effect on transportation until the St. Lawrence canals are also deepened.

In packing goods shippers should ask themselves the following questions:

(*a*) What style of packing will secure the lowest classification? (*b*) What is the minimum amount of tare, or dead weight, possible in every package? (*c*) What packing material and what style of package will give full protection to the goods and yet be the least expensive? (*d*) How can the goods be packed to insure their being in perfect condition when delivered?

The attention of manufacturers is drawn to the numerous statements made by railway officials that there will be a great rush of freight this fall. Steamship men say that the steamship package freight between Eastern Canada and the West will be so great that freighters running from Montreal and Toronto to the head of the lakes will not be able to handle it. The eastward movement of the western wheat crop will produce the usual congestion. In view of these facts manufacturers should make their shipments before congestion begins in the same way as they did last season, upon the advice of the Transportation Department.

It has been reported that United States railroads have been assisting United States manufacturers to get business in Canada by reducing rates to the frontier and by putting into effect through commodity rates to points in Canada. This is still another reason why the Canadian Customs tariff should be maintained at its present level, or raised on some articles. Canadian manufacturers who ship east and west on Canadian railroads get no reduced rates, but they have to compete with United States manufacturers who are favored by their own railroads.

Congratulations are due to the Dominion Board of Railway Commissioners for the admirable publication entitled "Circulars and General Orders," which has just been issued. This contains all the orders issued by the Board from its inception until October 12th, 1912. Its value to those who are interested is inestimable. The Board has also published a very handsome annual report, which will bear close scrutiny.



INSURANCE

By E. P. HEATON

WE cannot fail to be impressed by the necessity of taking our fire waste into most careful consideration. The month of June shows an unusually heavy fire loss record as compared with other years. The total compiled by the "New York *Journal of Commerce*," shows an aggregate of $24,942,700, as compared with June, 1912, of $16,103,450. Of this enormous toll exacted by the fire fiend, Canada has had, if anything, more than her fair share. The situation emphasizes the need for such an organization as the recently created Ontario Fire Prevention Association. We understand that this organization, which has been fostered by the C.M.A., will prosecute an active and vigorous campaign of education among the various municipalities of this Province. Steps have been taken looking towards the organization of kindred bodies in other Provinces.

The "Toronto *Saturday Night*," in a recent issue calls attention to the lack of legislation in this country permitting the organizing of bodies for transacting what is known as Reciprocal or Inter-insurance. We commend "*Saturday Night*" upon their article, a part of which is reproduced herewith.

"There are many such organizations in the United States and their operation has sometimes been an utter failure, and sometimes an unqualified success. A large amount of business is now done by Canadians with these American Inter-Insurers, but our Ottawa Insurance Department is not big enough to draft legislation to enable Canadians to do for themselves what they are doing through foreign organizations. The Bill above referred to as being enacted in Minnesota will probably provide for safety to Insurers with insurance at cost. It is a pity that legislation cannot be enacted in Canada that will not play entirely into the hands of the Underwriters Combine or enable a condition of affairs as now exists in Canada where $197,918,437 was reported to be insured in unlicensed companies."

The insurance situation in the State of Missouri has attracted more than ordinary interest, not only among the business people of that State, but among the insurers and insured generally throughout this Continent.

A few explanatory words would be in order here. Owing to certain drastic legislation recently passed by the Legislature of that State, known as the Orr Anti-Trust Laws, practically all the insurance companies transacting business in that State have ceased to do so. They have not withdrawn from the State but have simply discontinued to issue further policies. There has been considerable speculation as to what the effect of this procedure will be upon the business interests. For three months now no new insurance has been written and no expiring insurance has been renewed, except in half a dozen local companies, who, naturally, have been unable to provide more than a very small part of the required indemnity.

It is feared that the curtailment of credit which must naturally result from lack of insurance facilities, will not only seriously cripple, but may force into liquidation, a large number of Missouri business concerns. A somewhat similar state of affairs in another state of the union, some twenty-five years ago, made such a tremendous decrease in the number of fires, that the insurance companies found the field so attractive that they hastened to return to that State to take advantage of his very profiable business which had escaped them. While it is too early to estimate what the effect will be in Missouri, there does not seem to have been the great decrease in fire losses which so many people expected.

Periodical inspection of all property except dwellings in cities and villages is made compulsory in the State of Wisconsin, U.S.A., by legislation recently effected. The inspections are to be made by the local fire departments with the assistance and under the supervision of the state fire marshal. They must be made at least once in six months or once in three months within fire limits. This is a regulation we would like to see introduced in the various Provinces of Canada. The Ontario Fire Prevention Association is actively striving to secure the enactment of up-to-date, common-sense laws like this. Our members are urged to send in their membership applications to the O.F.P.A.

It has always been the feeling of the engineers of our Association, founded sometimes on bitter experience, that a sprinkler system may represent false security where it is not kept under rigid inspection. While undoubtedly it would be an immense gain if all basements in the congested districts were equipped with automatic sprinklers, the full value of such protection could not be secured without rigid inspection continuously maintained. Even in the best appointed establishments sprinkler equipments are frequently found out of order by inspectors. Repairs following a fire or injury of any sort to the system should always be carefully made. It is desirable as a general proposition that sprinkler work of every sort should be installed by the regular companies, having pride in the proper operation of the equipment. It is obvious, however, that this practice cannot always be followed, as for example—in the event of a fire which opens a small number of sprinklers or some accident occurring which makes it necessary to install a few new sprinkler heads. Prompt action should invariably be taken in restoring the equipment to commission, and in such an emergency sprinklers must often be installed by the employees of the mill or factory. Work of this character should be done with the greatest care and attention to the details of the installation. Examination of sprinkler heads removed for test purposes has shown heads in which the water passage was entirely obstructed by white lead which had hardened in the same. Investigation of such cases usually demonstrates that such heads were installed by local workmen who evidently handled the same carelessly, possibly even dipping them in the white lead.—*N. F. P. A. Quarterly.*



LEGAL NOTES



By F. W. WEGENAST

THE proposal to establish in Canada bankruptcy courts which would deal uniformly with all cases of insolvency, is being discussed seriously at the present time, and the result of this discussion, if it is crystallized into legislation, will be of considerable interest to manufacturers.

Mr. James Bicknell, K.C., of the Ontario Bar, has prepared an excellent treatise on "The Advisability of Establishing a Bankruptcy Court in Canada," and his observations and conclusions, which are the result of much reading and investigation, will be of great value to those who are concerned with the problem.

INDUSTRIAL CANADA, owing to limitations of space, cannot reproduce more of Mr. Bicknell's treatise than a summary which, necessarily, cannot do it full justice.

Before making his suggestions regarding a bankruptcy law, he states that he has discovered the following underlying principles of British and United States legislation of a similar character.

"1. Every debtor must be compelled to submit to a public examination before a judicial tribunal respecting his conduct and he must be compelled to explain the reasonable and probable causes of his failure in business.

"2. No man whose failure has not been brought about by misfortune should be entitled to a discharge.

"3. All undischarged bankrupts should be incapable of obtaining credit and should be incapable of holding public office and positions of trust."

Bearing in mind these principles, but without attempting to work out the details of a Canadian bankruptcy law, Mr. Bicknell makes the following suggestions:

"1. That there should be enacted in Canada a uniform law, governing all matters coming within the ambit of bankruptcy legislation. Creditors in Toronto or Montreal should be able to know that the remedies against a defaulting debtor resident in Halifax are equally as good and as readily available as the remedies against a debtor in Vancouver.

"2. The administration of the bankruptcy laws should be committed to the Superior Courts of the various Provinces and the Judges of the various County and other local Courts should be Referees in Bankruptcy.

"3. Upon the commission of an act of bankruptcy the creditors should have a summary and speedy remedy against the entire estate of a debtor.

"4. The creditors should have the entire control of the administration of assets, and should be at liberty to say whether the assets should be administered under the supervision of the Courts or by a trustee of their own choosing.

"5. No composition should be effective or should entitle the debtor to a discharge unless first confirmed by the Court after full enquiry into (*a*) the conduct of the debtor, (*b*) the claims of the creditors, (*c*) the objections of dissentients, or the expenses attendant thereon.

"6. Inasmuch as the state is entitled to the benefit of the services of all its subjects no creditor should be allowed to hold in bondage the soul, body or talents of any of its subjects merely because he has been unfortunate.

"7. If a debtor is not able to give an adequate, reasonable and satisfactory account of the transactions causing his failure, his future earnings should be impounded for the benefit of his past creditors until they have been sufficient to pay a reasonable percentage upon the dollar of his creditors' claims.

"8. Dishonest and incompetent traders should be stigmatized as undischarged bankrupts and should be incapable of engaging in trade or contracting debts without reasonable prospects of paying them.

"9. There should be an official supervision over the accounts of all trustees.

"10. A central bureau should be established in each province, presided over by a Superior Court Judge by whom all bankruptcies would be supervised, thus ensuring both uniformity and honesty of administration.

"11. The guiding principle should be 'the estate for the creditors.' The procedure should be so simple and expeditious as to produce the speediest and best results.

"12. Every debtor should be compelled to submit a full statement of his assets and liabilities and the reasons for his failure at the first meeting of his creditors and should thereafter be examined in open Court before a Judge, in the presence of his creditors, and should thereupon be called upon to answer all questions which might be put to him by counsel or any of his creditors with regard to his affairs, and any prevarication or failure to make a satisfactory explanation should be punishable as contempt.

"13. The bankruptcy law should be available to all debtors, both traders and non-traders.

"14. The wage-earners and the possessors of small estates who perhaps have fallen into the hands of loan sharks should be enabled to have their estates administered in bankruptcy at a minimum of expense.

"15. The present system of appointing assignees has been found in the main to work satisfactorily and subject to the control of creditors should be permitted to continue, but for the administration of small estates and estates over which creditors do not care to take control, a salaried official should be appointed in each province, who would officially supervise all such small bankruptcies and enable justice to be done both to the creditor and the debtor without undue expense."

A cable has been received by the Legal Department stating that leave has been granted to carry the British Columbia Company law test cases on appeal direct from the British Columbia Courts to the Privy Council, omitting the intermediate appeal to the Supreme Court of Canada.

These cases deal with the questions of Provincial and Dominion jurisdiction in regard to the incorporation of companies, and whether it is *intra vires* of the British Columbia Government to prohibit a company with a Dominion charter from carrying on business within the Province.



CUSTOMS



By J. R. K. BRISTOL

THE following are the principal changes made in the Underwood Tariff Bill by the United States Senate Democratic Caucus. The bill now goes before the Senate for debate. After it passes the Senate it will be considered in conference committee, in which Democratic Senators and House Representatives will be in the majority:

SCHEDULE A.

Par.	Item.	House Rate.	Senate Com. Rate.
1.	Gallic acid	4c	7c
	Oxalic acid	2c	1½c
	Pyrogallic acid	10c	15c
	Tannic acid	4c	5c
6.	Alizarin	10%	Free
14.	Caffein compounds	20%	
15.	Calomel	15%	20%
23.	Creosote oil	5%	3%
	Amthracene oil	5%	3%
26.	Pyroxylin	15%	25%
	Proxylin finish	35%	40%
37.	Chicle, per lb.	20c	15c
	Dextrine (potato), lb.	¾c	1½c
46.	Alizarin assistant	15%	25%
	Linseed oil, per gal.	12c	10c
	Olive oil, per gal.	20%	20c
53.	Blues under 7c. per lb.	15%	1c
65.	Cyanide of potash	1½c	Free
68.	Cyanide of soda, per lb.	1½c	Free

SCHEDULE B.

78.	Asphalt, per ton	25%	Free
	Bitumen, per ton	50%	Free
79.	Mica, per l.b	15-30%	4c-30%
87.	Glass (small sizes), lb.	⅞c	1c
94.	Glass strips	20%	25%
96.	Opera glasses, etc.	30%	35%
	Telescopes, etc.	30%	25%
98.	Glass enamel	Free	20%

SCHEDULE C.

104.	Pig iron	8%	Free
	Wrought iron, etc.	8%	Free
105.	Slabs, blooms, etc.	8%	Free
	Muck bars, etc.	8%	5%
106.	Beams, etc.	12%	10%
107.	Boiler iron	15%	12%
108.	Anchors, etc.	15%	12%
	Hoop iron	12%	10%
111.	Tin plates	20%	15%
	Steel ingots	15%	10%
113.	Steel wool	20%	15%
	Grit shot, etc.	30%	25%
116.	Coated wire	20%	15%
	Wire rope	30%	25%

Par.	Item.	House Rate.	Senate Com. Rate.
121.	Automobiles—		
	Worth under $1,000	45%	15%
	Worth $1,000-$1,500	45%	30%
122.	Motor cycles	40%	25%
125.	Iron bolts	15%	10%
	Nuts locks	35%	25%
126.	Card clothing	40%	10-30%
127.	Iron pipe	12%	Free
128.	Chains	20%	25%
133.	Files, machine	25%	20%
	Files (hand cut)	25%	35%
137.	Needles	25%	20%
144.	Wheels	25%	15%
145.	Aluminum (crude), lb.	25%	2c
	do. plates, per lb.	25%	3½c
148.	Bronze powder, per lb.	25%	8c
	Dutch metal, 100 l'ves	25%	4c
152	Metal threads	30%	25%
154.	Lead ore, per lb.	½c	¾c
164.	Zinc ore	10%	12½%
	Pig zinc	10%	15%
169.	Manufacturers of metal	25%	20%

SCHEDULE G.

188.	Cattle	10%	Free
190.	Sheep	10%	Free
196.	Oats, per bushel	10c	6c
	Oatmeal, per 100 lbs.	Free	33c
198.	Wheat, per bushel	10c	Free
200.	Butter, per lb.	3c	2½c
201.	Cheese, per lb.	20%	2½c
203.	Beets	10%	5%
208.	Frozen eggs, per lb.	2½c	2c
209.	Dried blood, per lb.	1½c	Free
214.	Peas, per bushel	15c	10c
	Split peas, per bushel	25c	20c
	Peas in packages, per lb.	½c	1-3c
217.	Flaxseed, per bushel	20c	15c
	Seeds in general, per lb.	10%	5c
221.	Fish	20%	25%
223.	Currants, per lb.	2c	1c
227.	Bananas, per lb.	Free	1-10 of 1c
233.	Meat extract, per lb.	15c	10c
	Fluid meat extract, per lb.	7c	5c

SCHEDULE I.

255.	Cotton thread	5-25%	5-27½%
257.	Cotton cloth	7½-27½%	7½-30%
260.	Handkerchiefs, unfinished	30	25
261.	Cotton clothing	25%	30%
263.	Jacquard goods	30	35
265.	Hose	40-50%	30-50%
	Cotton gloves	35%	45%
267.	Belting, etc.	15-25%	15-30%

SCHEDULE J.

Par.	Item.	House Rate.	Senate Com. Rate.
272.	Flax, per lb.	½ of 1c	Free
273.	Dressed flax, per lb.	1½c	Free
274.	Tow, per ton	$10.00	Free
275.	Hemp, per lb.	½c	Free
276.	Duke yarns	15-25%	20%
279.	Flax yarns	15%	12%
280.	Nets	30%	25%
281.	Matting, square yards	2½c	2c
282.	Carpets	35%	30%
284.	Tapes	25%	20%
287.	Bandings	50%	40%
289.	Hemp pile fabrics	45%	40%
290.	Sackings	25%	10%
292.	Woven fabrics	35%	30%
293.	Damask	40%	—%

SCHEDULE K.

295.	Wool tops	15%	5%
296.	Yarns	20%	15%
297.	Wool stockings	35%	15-50%
314.	Goat hair	20%	Free
315.	Goat hair tops	25%	5%
316.	Goat hair yarns	30%	15%
317.	Goat hair cloth	40%	35%
318.	Velvets, etc.	50%	40%

SCHEDULE L.

319.	Raw silk, per lb.	15%	30c
320.	Spun silk, per lb.	35%	30-50c
	Plus No. per lb.		15c
321.	Throw silk, per lb.	15%	35c-$1.05
322.	Velvets, per lb.	50%	$1.25-$3.25
	Plushes, per lb.	50%	$1.00-$2.00
323.	Silk handkerchiefs	40%	45%
324.	Ribbons	40%	45%
327.	Artificial silk yarns	35%	25%

SCHEDULE M.

332.	Coated paper	35%	25-50%
	Basic paper	25%	15%
333.	Pictures, cards, etc., per lb.	15-30%	15-40c
	Booklets, etc., per lb.	12%	7c
	Decalcomanias, per lb.	20%	60c

SCHEDULE N.

342	Hat braids	50%	40-50%
347.	Buttons	40%	25-50%
351.	Artificial abraives	10%	Free
253.	Fulminates	5%	Free
354.	Gun powders, etc., per lb.	½-1c	Free
356.	Percushion caps, per thousand	75c	$1.00
358.	Per undressed furs	10%	Free
	Fur articles	40%	35%
	Cattle fur	50%	15%
364.	Fur hats	40%	45%
367.	Glaziers diamonds	10%	Free
	Marine coral	Free	10%
369.	Chamois skins, etc.	15%	10%
	Bags fitted	30%	40%
373.	Women's gloves not over 14 in., per doz.	$2.00	$2.50
	Men's gloves, per doz.	$2.00	$3.00
377.	Mfs. of amber, etc	10%	20%
378.	Mrs. of rubber	10%	10-15%
380.	Masks	20%	25%
386.	Paintings, etc.	15%	25%
388.	Pencils, per gross	25%	36-25%
390.	Photographic material	20%	15% up
391.	Meerschaum	Free	20%

Total Exports and Imports of the Dominion of Canada for April and May (first two months of fiscal year.)

Exports.	1911		1912		1913	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
	$	$	$	$	$	$
The Mine....	5,430,343	30,946	6,851,368	12,148	6,973,024	30,916
The Fisheries	788,380	12,895	994,920	6,091	1,618,045	17,528
The Forest...	3,846,111	397	4,363,854	.....	4,909,278	960
Chemicals and their Produce ...	4,031,359	84,438	3,487,891	56,185	4,070,587	106,089
Agriculture..	12,077,309	846,723	25,516,221	92,523	24,632,246	603,465
Manufactures	4,914,819	941,788	5,793,176	1,092,467	7,681,037	2,248,383
Miscellaneous	10,667	139,468	12,576	120,970	16,634	196,536
Total Mdse..	31,098,988	2,056,655	47,020,006	1,380,384	49,900,851	3,203,877

Coin and bullion not included in above.

Imports.	1911	1912	1913
Dutiable Goods	$47,372,243	$66,416,131	$72,552,583
Free Goods	27,564,536	32,972,104	36,449,981
Total imports	$74,936,779	$99,388,235	$109,002,564
Duty collected	12,275,694	17,174,441	18,769,819

BUILDING MATERIALS IN WESTERN CANADA.

Valuable Resources Being Gradually Opened Up.

With the exception of British Columbia there is very little building stone produced in Western Canada. This is due to two causes. First the rocks which underlie the developed portions of the Prairie Provinces are of comparatively recent age, and are, consequently, soft in character and weather rapidly; second, there are very few rock exposures in the settled portions of these provinces, except in the Rocky Mountains and the foot hills.

In British Columbia there are large potential resources of building stone. They have, however, been developed only in certain localities on the Pacific Coast, and have been confined to Cretaceous sandstone and certain volcanic rocks, situated on Vancouver Island and adjacent islands. Varieties of marble are also quarried on Texada Island.

SHOW YOUR SALESMAN

That advertising multiplies HIS efficiency.

That advertising promotes higher ability and a broader grasp of merchandising.

That advertised goods are plus—good goods with selling power behind them. They are goods that go under their own power.

That when he sells advertised goods he is no longer a peddler or a counter-jumper, but an executive.

That the highest-priced salesmen are those who can make the best use of their opportunities which advertising affords.

That the only salesman whom advertising hurts is the one who cannot measure up to improved methods of merchandising.—*Hartshorn's Roller.*

STRIKES IN CANADA.

From January 1, 1901, to December 21, 1912, there were 1,319 labor strikes in Canada, in which 319,880 men figured at a total estimated cost to the country of $18,000,000, based on the conservative estimate that the average value of the working day is $2.

During the 12 years nine million working days were lost owing to strikes, or an average of three-quarters of a million days per year for the period taken.

These interesting figures are embodied in a report just prepared by officials in the labor department, giving all the most important facts and strikes and lockouts in the 12 years specified.

Though there were 319,880 men involved, it is pointed out in the report that many of these men may have been involved in strikes or lockouts more than once during the period in question.

A' for Halifax

HOOT MON!

HALIFAX AWA'!

Dinna forget the Convention o' yon manufacturin' bodies, whilk is to be held in the auld toon o' Halifax, Nova Scotia (New Scotland), September 16, 17 and 18.

There's to be an excursion by sea an' lan'. We'll probably keek intil thae toons o' Amherst an' New Glesca'. There'll be a gey jaunt aboot the Annapolis Valley, where we'll see the apple pickin'.

And at auld Halifax hersel' the Scotch will be oot til meet us wi' their kilts and pipers and a' and a'. Days for business and e'ens for rantin' and tootin' and liltin', and up wi' thae birds in the mornin'! Save us a'.

And then we hope to hae a graund sail between the bonnie, bonnie banks o' the St. John.

Doon wi' hesitation. Pit a red ring aboot thae dates. On til Nova Scotia.

Halifax awa'!

BUSINESS FAILURES IN U. S.

While the 8,163 failures in the United States during the first half of 1913 compare favorably in number with the 8,317 insolvencies in the same period of 1912, the liabilities of $139,909,061 were much larger, comparing with $108,021,223, being, in fact, the largest since 1893. Statistics over a term of years as compiled by Dun's agency, follows:

	No.	Assets.	Liabilities.
1913	8,163	$91,129,616	$132,909,061
1912	8,317	89,643,271	108,012,223
1911	7,060	65,997,792	103,695,034
1910	6,388	76,328,611	112,239,306
1909	6,831	63,146,097	88,541,373
1908	8,709	78,762,588	124,374,833
1907	5,607	42,153,278	69,568,662

PEDLAR PEOPLE, LIMITED, ADD TO STAFF.

Mr. W. R. Geikie, formerly Branch Manager of The Pedlar People, Limited, at Toronto, will be Managing Director. The operating department has been strengthened by the addition of Mr. W. Loach, formerly connected with the management of Canada Foundries, Ltd., Toronto. A further addition has just been made in the person of Mr. A. T. Enlow, in general charge of Sales and Advertising. He was plant manager for the United States Steel Corporation, and later, Sales Manager of Berger Manufacturing Co., and General Sales Manager of the Stark Rolling Mills Co., both at Canton, Ohio.

BUSINESS OPENINGS FOR MANUFACTURERS

Railways State where Factories might be Located.

THE handbook published periodically by the Canadian Pacific Railway contains an unusually long list of towns in Western Canada, where, according to the Company, industries might be profitably located. The following are the more important:

Abattoirs—Arcola, Yorkton.

Aerated Water Factories—Crystal City, Indian Head.

Agricultural Tractors—Brandon, Lethbridge, Saskatoon.

Auto Accessories—Brandon, Fort William, Viceroy.

Bag Factory—Nelson.

Beet Sugar Factories—Brooks, Gleichen, Lethbridge, Morden, Stonewall, Taber.

Biscuit Factories—Edmonton, Lethbridge, Macleod, Medicine Hat, Nelson, Saskatoon, Weyburn, Yorkton.

Box Factory—Chase, Cranbrook, Edmonton, Enderby, Fernie, Hammond, Haney, Kitchener, Mission Jct., Olds, Vernon.

Brewing and Malting—Estevan, High River, Lethbridge, Macleod, Swift Current.

Brick Yards—Alix, Arborg, Armstrong, Bankhead, Beiseker, Bienfait, Boissevain, Bow Island, Burmis, Carmangay, Cardston, Carstairs, Castor, Champion, Clive, Cowley, Coleman, Coalhurst, Creston, Crystal City, Darlingford, Didsbury, Earl Grey, Elbow, Estevan, Esterhazy, Francis, Gladstone, Gleichen, Hammond, Hardisty, Herbert, Irricana, Irvine, Kerrobert, Kelfield, Lanigan, Ladysmith, La Riviere, Leduc, Lethbridge, Maple Creek, Macleod, Merritt, Melita, Minnedosa, Mortlach, Nicola, Okotoks, Olds, Outlook, Port Alberni, Portage la Prairie, Roche Percee, Ruskin, Russell, Salmon Arm, Saskatoon, Selkirk, Souris, Stettler, Stonewall, Stirling, Sutherland, Swift Current, Swinbourne, Theodore, Vernon, Warner, Westbourne, Weyburn, Wilkie, Windthorst, Wolseley, Yellow Grass, Yorkton.

Canning Factories—Armstrong, Creston, Grand Forks, Kamloops, Kelowna, Nanaimo, Penticton, Port Alberni, Salmon Arm, Stonewall, Summerland, Vernon.

Carriage Factory—Nelson.

Cement Plants—Blackfalds, Bow Island, Carman, Cranbrook, Crystal City, Estevan, Eyebrow, Hardisty, Kamloops, Lanigan, Lethbridge, Outlook, Rosetown, Selkirk, Treherne, Wetaskiwin, Wilkie, Windthorst.

Cereal Mills—Beiseker, Crystal City, Edmonton, Kerrobert, Lacombe, Langdon, Lethbridge, Mortlach, Saskatoon, Strathmore, Yorkton.

Cordage Plant—Bassano, Saskatoon.

Flax Mills—Bassano, Estevan, Gleichen, Kerrobert, Lethbridge, Macklin, Morse, Outlook, Plenty, Saskatoon, Stettler, Strathmore, Sutherland.

Flour Mills—Alexander, Anglia, Balcarres, Bassano, Beiseker, Bienfait, Birtle, Bow Island, Bredenbury, Broadview, Broderick, Brooks, Camrose, Carberry, Carlyle, Carmangay, Carstairs, Cayley, Claresholm, Conquest, Coronation, Crystal City, Cypress River, Daysland, Earl Grey, Elbow, Elstow, Estevan, Eyebrow, Fillmore, Francis, Franklin, Gleichen, Granum, Griffin, Gull Lake, Halbrite, Halkirk, High River, Irvine, Kamloops, Kerrobert, Killam, Lang, Langdon, Lethbridge, Lanigan, Leduc, Macoun, Maryfield, Mather, Milestone, Minnedosa, Moosomin, Morse, Morris, Mortlach, Namaka, Nanton, Neepawa, Nesbitt, Neudorf, Niverville, Omega, Olds, Otterburne, Oxbow, Pense, Pierson, Pilot Mound, Pipestone, Plenty, Plum Coulee, Provost, Ponoka, Poplar Point, Rapid City, Reston, Rouleau, Rosetown, Rosyth, Sintaluta, Stoughton, Strathmore, Sutherland, Swift Current, Vanguard, Virden, Wapella, Warner, Waskada, Westbourne, Welwyn, Whitewood, Wilkie, Wolseley, Wynyard, Yorkton.

Lime Plant—Bankhead.

Machine Shops—Alameda, Amisk, Bassano, Barons, Beiseker, Blairmore, Bow Island, Brooks, Cardston, Carlstadt, Carmangay, Camrose, Conquest, Crystal City, Dryden, Elbow, Estevan, Fillmore, Francis, Gleichen, Glenboro, Griffin, Gull Lake, Langdon, Lethbridge, Maple Creek, Medicine Hat, Miniota, Moosomin, Morse, Mortlach, Nokomis, Olds, Pense, Perdue, Pilot Mound, Revelstoke, Shoal Lake, Strassburg, Sutherland, Swift Current, Virden, Vulcan, Webb, Whitewood.

Oatmeal Mills—Boissevain, Francis, Franklin, Gleichen, Lethbridge, Minnedosa, Moosomin, Morse, Russell, Rouleau, Shoal Lake, Stettler, Warner, Weyburn, Wilkie.

Packing Plants—Bassano, Bow Island, Carman, High River, Innisfail, Kerrobert, Lethbridge, Manitou, Red Deer, Saskatoon, Strathmore, Taber, Wolseley, Yorkton.

Paper Mills—Eagle River, Grand Forks, Innisfail, Kenora, Nelson, Neepawa, Revelstoke, Selkirk.

Paint Works—Nelson, Saskatoon.

Planing Mills—Bassano, Gimli, Lanigan, Taber, Yorkton.

Pottery Plants—Yellow Grass, Yorkton.

Sash and Door—Abbotsford, Alix, Bassano, Blairmore, Camrose, Chase, Coronation, Enderby, Herbert, Kamloops, Kelowna, Kerrobert, Kitchener, Lacombe, Macleod, Melita, Mission Junction, Nesbitt, Nicola, Olds, Port Alberni, Port Moody, Rapid City, Rosetown, Salmon Arm, Souris, Stettler, Strassburg, Swift Current, Taber, Virden, Wapella, Wilkie.

Saw Mills—Gimli, Eagle River, Macleod, Ruskin.

Shingle Mills—Chase, Port Alberni.

Ship Building—Nanaimo.

Soap Factories—Brandon, Edmonton, Lethbridge, Saskatoon Weyburn.

Strawboard Factories—Cochrane, Elbow, High River, Lethbridge, Minnedosa, Neepawa, Saskatoon, Sutherland, Yorkton.

Tanneries—Camrose, Carmangay, Lacombe, Lethbridge, Moosomin, Nelson, Stettler, Wapella, Wetaskiwin, Yorkton.

Vinegar Plant—Nelson.

Wagon Factories—Fort William, Lethbridge.

Windmills and Pumps—Lethbridge.

Wire Fence Factories—Medicine Hat, Saskatoon.

In Northern Ontario.

The Temiskaming and Northern Ontario Railway have just published the following list of openings in Northern Ontario:

Box Factory—New Liskeard.

Brick Industry—New Liskeard, Cochrane, Heaslip, South Porcupine.

Brick and Tile Industry—Matheson.

Cement Works—Cochrane.

Canning Factory—New Liskeard, Haileybury.

Foundry—Cochrane.

Grist Mill—Charlton, Englehart.

Iron Foundry—Haileybury.

Lath Mill—Charlton.

Lime Manufactory—Haileybury.

Machine Shop—Haileybury, South Porcupine.

Planing Mill—Tomiko.

Pulp Mill—Charlton, Tomiko, Haileybury, Englehart, Latchford.

Sash and Door Factory—Charlton, Tomiko.

Sash, Door and Lath Factory—Cochrane and Englehart.

Saw Mill—Heaslip, Widdifield, Haileybury.

Shingle Mill—Heaslip.

Stave Mill—Tomiko.

Woodenware Industry—Cochrane, Haileybury, New Liskeard.

WORK OF FACTORY INSPECTORS

By ONE OF THEM

Co-operation with Employees is more Desirable than Compulsion; much Remains to be Done. The Evils of Child Labor Greatly Exaggerated

IN keeping with the growth of manufacturing, the conditions relating to our factory laws are being improved, even in cases without the aid of inspection. The better class of employers show an increasing willingness to promote the welfare of their employees.

There are those who have looked upon factory inspection as of questionable value, but results to-day show that conclusion to be wrong. It may be true that ideal conditions are still in the misty future, because it is difficult to reach the ideal and still maintain the practical, but such is the end and aim of inspection, and the general condition of factory premises has now reached a better standard than once obtained.

In the matter of administration, for the primary object for which the office of factory inspector was created was to enforce labor laws, inspection is incidental to this and necessary for enforcement, but persuasion is, as a general rule, preferable to compulsion. Compulsion in anything has a tendency to antagonize, and the straining of relations between inspector and employer is undesirable. Much more good can be accomplished by missionary work, appeals to reason, to an employer's sense of responsibility than by prosecutions. Prosecutions will ensure compliance with the letter of the law, but the spirit is only put in operation by advice and suggestion. There are, of course, extremists who believe that every violation of the law should be vigorously prosecuted, and there is no hesitancy whatever in invoking the law where deliberate and continued violations are in evidence, but officials in charge of the work are the best judges of when to adopt moral suasion and when to resort to sterner methods. This is something which has to be determined by the case in hand.

Assistance to the Employer.

Appreciation of the fact on the part of employers that improved conditions for their employees is of interest to themselves, and that they, as well as their employees, are protected by proper factory inspection, is of great assistance in having the laws carried out, and has effected a better understanding between employer and inspector.

To suppose that no opposition is met with in the course of inspection would be an erroneous idea. Employers are human, and while it is not difficult to secure the early co-operation of the majority, others will resist falling in line as long as possible, resorting to subterfuges of every kind. Perhaps this may be better explained by using as an illustration steam boiler inspection. One manufacturer will have his boilers inspected regularly by a competent boiler insurance inspector, without waiting for an annual reminder of his duty, whereas another will look for all sorts of excuses before complying with this very essential requirement, and finally ends by learning that the boilers have been neglected and in consequence he is unable to start work at the beginning of the season on account of needed repairs. Evasions such as these are more difficult to deal with than out and out opposition.

To administer our laws with strict impartiality and equity is no child's play. A great many perplexing questions involving different interests have to be decided, and this requires a thorough knowledge of the law as well as active comprehension so that when applying the law to existing conditions the best possible results may be obtained.

Difficulties of the Position.

An inspector in the performance of his duties has a somewhat difficult course to pursue; he is very often between the deep blue sea and—other things, for the work of inspection is viewed from different standpoints; that of the employees who can only see a desire on the part of employers to grind them down, to get all out of them that is possible, to accumulate wealth at any cost, even at the expense of his employees; indifference to physical suffering, distress and hardship. On the other hand, there is the employer who sees on the part of his employees discontent, a carelessness of personal safety, and lack of appreciation of any effort made in their interests. To steer a straight and just course requires tact, good judgment, suavity, as well as practical knowledge.

There is a wide field to cover in enforcing labor laws. Occupational disease, reduction of accidents, and the elimination of child labor are in the very forefront of all questions in the industrial world. Of all industrial conditions the one producing the most evil and far reaching results is occupational disease. The elimination or reduction of accidents, excessive hours of labor, fire protection, child labor, are all easy to accomplish in comparison with combatting disease. There is no compensation for disease—nothing could adequately compensate for the diseases engendered in certain occupations. No amount of compensation could prevent transmission of disease. Prevention, if it may be so put, is the only remedy. How this may be done is occupying the attention of all interested in the welfare of the employee. Investigators of labor all over are considering ways and means of dealing with it, medical men are also interesting themselves, but the problem is not yet solved. Wide co-operation is essential, co-operation of employers, inspectors and employees themselves as well. Investigation and inspection are only preliminaries.

Factory Evils.

A great deal of time and thought has been given to the safe-guarding of machinery, from the standpoint of some employers, too much, as compared with the consideration of air, light and sanitation. There is something in this too as the awful devitalizing effects of bad air, bad light, and the unsanitary conditions are more far reaching as regards the welfare of future generations than the loss of a limb, serious as that is. Accidents are only one form of risk to which workmen are exposed. The reporting of accidents brings almost automatically preventive measures, and often compensation; so, too, the knowledge of unhealthy and dangerous occupations would bring its measure of protection. Employers are not all inhuman or indifferent to suffering and ignorance of bad conditions is often the reason for their existence. Frequently workmen themselves have the best knowledge of unhealthy conditions. There are injuries for which an

employee is largely, if not solely to blame, but in the matter of air, light and sanitation he is entirely without responsibility.

The steel industries are extra hazardous, even under the best conditions, and great care and precaution will have to be exercised if the percentage of accidents is to be lowered. A great many of the accidents happening in these places, however, are not due to machinery, the majority of them are either almost unavoidable or precipitated through carelessness. It seems that in spite of precautions, warning signs, guards, etc, the number of accidents continues to be large. Moving cranes, electrical devices, hot flue dust, falling iron and other material, molten metal and rolling mill work are most frequent causes of accidents in these places. Some employees persist in oiling pulleys, gears and shafting while machinery is in motion; a slight slip and the loss of a hand may be the result; should their clothing become caught in belting or shafting it may mangle the whole arm, or inflict fatal injuries, and until such dangerous practices have stopped the employer and factory inspector may labor unceasingly and still be powerless to prevent accidents.

Exaggeration re Child Labor.

Much has been said and written about child labor, and the excessive hours of labor for women and children, and they are undoubtedly questions of great importance, but one almost questions whether there is not just a little exaggeration of conditions in connection with child labor here. Employers are not as a whole as keen to employ very youthful labor as is generally supposed, or as, very often, parents are to have them employed. They know that it would be against public opinion, as well as against the law, and in the event of an accident where insurance companies are carrying the risk, an explanation is usually required, and they also stand to receive a severe lesson if such a case is brought before the courts for damages. All are agreed, of course, as to the direful effects of a wholesale violation of these laws, and that child labor is a crying sin and a not-to-be-tolerated condition, but the serious conditions said to exist in other countries, and which are causing so much discussion, are not as much in evidence here, at least, not yet. Preventive measures are however in order, for with increasing population and extension of industrial life there is always a liability of evils and abuses creeping in if not closely watched, even more, perhaps, than deliberate violations of the law, and one of the purposes of factory inspection is to see that they are not allowed to.

How much factory inspection has done for the growing population of this country may perhaps not be well known, but to those who have occasion to note the difference in factory conditions at the present day compared with those when it was in its infancy, the fact that inspection is a fact, not a theory, will most emphatically appeal.

STURTEVANT COMPANY FOR GALT.

Governor Foss Says that the Underwood Tariff Bill will Force this Great Concern into Canada.

Governor Eugene Foss, who is interested in the B. F. Sturtevant Company, stated in July that on account of the lowering of protection in the Company's products contemplated in the Underwood tariff bill, the Company would transfer a large part of its business to Galt, Ontario. After reading the following statement of Governor Foss, we would like to ask our Free Trade and tariff reduction friends if Canada would have got this concern if our Canadian Customs Tariff were abolished or lowered:—

Governor Foss' Statement.

"For more than twelve years one of the principal Massachusetts corporations which I represent has had under consideration a plan of transferring to Canada a large portion of its work. I have personally opposed this plan, and endeavored to maintain this industrial enterprise in full here in Massachusetts, but am now convinced that it is no longer possible to defer action on this matter. Accordingly I make the announcement, although I do so with sincere regret, that the B. F. Sturtevant Company has just completed the purchase of a manufacturing plant in Galt, Ontario, and that a large part of the work which has hitherto been done at Hyde Park will now be transferred to Canada, the refuge.

Principal Manufacturers Coming to Canada.

"All over the United States the tendency among the principal manufacturing interests is toward the establishment of plants in Canada. This movement has been going on for many years, and it is estimated that from three to five hundred million dollars of United States capital is now invested in these Canadian plants. The Sturtevant Company must join the procession in order to meet the conditions of the industry, for the movement has now proceeded to a point where corporations which fail to follow are faced with serious embarrassment. American manufacturers have completely filled the American market, and their production is now greatly in excess of the domestic demand. Under these conditions the expansion of their domestic plants is impossible, and it is becoming necessary for them to curtail production. This movement of American manufacturers to Canada could be stopped and they could remain intact in this country if it were not for the absurd conditions created by our tariff legislation.

But He Wants Reciprocity.

"We should have with Canada and other countries such trade agreements as would enable us to manufacture our goods in the United States, giving employment to American workingmen and utilizing American capital. But such agreements would imply a recognition of the principle of reciprocity. If we were to ship the products of American factories to Canada and Europe without the present handicaps, we should require certain trade concessions from the governments of our customer nations, and in return for these concessions we should be expected to grant similar ones to the products of those countries."

Description of the Company.

The B. F. Sturtevant Company, of which Governor Foss is treasurer, was incorporated in July, 1890, in Massachusetts. The company manufactures mechanical draft fans, blowers, engines, heating and ventilating apparatus, fuel economizers, etc. Its works are at Hyde Park, Massachusetts, and it has branches at Chicago, Cleveland, Philadelphia, Pittsburg, New York, San Francisco, Washington, Seattle, Rochester, Hartford, Cincinnati, St. Louis, Minneapolis, Boston and Atlanta.

The company's capital stock is: Authorized and outstanding, $1,250,000 6 per cent. cumulative preferred and $1,250,000 common; par $100. The preferred stock is subject to call at 105.

The company's balance sheet, June 30th, 1912, gave the following result:—

Assets—Real estate and machinery, $626,865; material and stock in process, $735,806; cash and debts receivable, $1,429,208; patent rights, $11,750 securities, $196,911; good-will and trade marks, $40,000; total, $3,040,540.

Liabilities—Capital stock, $2,500,000; accounts payable, $288,087; guarantee fund against depreciation of accounts and notes receivable, $200,000; surplus, $52,453; total, $3,040,540.

The officers of the company are: Messrs, John Carr, president; Eugene N. Foss, treasurer; B. S. Foss, secretary, and E. B. Freeman, assistant treasurer and general manager, Hyde Park; directors are the foregoing and Messrs. J. R. Dunbar and E. P. Howe.

INDUSTRIAL ACCIDENTS AND THEIR CAUSES

By WILLIAM H. DOOLITTLE
Safety Inspector, National Metal Trades Association

Note.—The following is part of an interesting paper read by Mr. Doolittle at the recent Convention of the National Metal Trades Association

WITH the advance of natural science has come the discovery and demonstration of certain constant, invariable rules of being which have been termed laws. Natural law is the antithesis of luck and chance. Law is regular and invariable; luck is irregular and erratic. Law has been proved by research and investigation; luck is without foundation. Modern science discovers law but disowns luck. Only luck. Only the unprejudiced and dispassionate are competent to formulate laws; a superstition may be started by any designing person who can impose on the credulity of others.

Luck and chance belong to a cruder age when man groped in the darkness to find principles. Fortunately for posterity the enquiring mind of man, temporarily mired in the slough of superstition, has been persistent in its quest of knowledge. Progress has been impeded but not prevented. Every common human experience must in the end yield to analysis, and the results of these analyses, systematized and formulated, are the foundation of general truths, or laws.

Alchemy has given way before the development of chemistry, and astrology has been superseded by astronomy. In every instance where like conditions or causes have been found to produce like effects a law has been promulgated. The laws of gravitation, centrifugal force, expansion of gases, etc., are considered basic and fundamental for the reason that no deviations from them have ever been observed.

The prevention of industrial accidents by means of charms, incantations and mascots always has been and ever must be a lamentable failure. The application of scientific principles to accident prevention has met with success.

A comparison of available statistics indicates that time, energy and thought expended in this way have been the means of greatly reducing both the cost and the number of accidents.

A reduction of 29 per cent. on a division of an immense railway system, of over 60 per cent. in the mills of some of the great steel companies, and of more than 73 per cent. in proportion to the number of operatives in one of the largest industrial plants in the East are results that must appeal to both humanitarians and financiers. In all of these instances the results were accomplished by systematic efforts.

Scientific Accident Prevention.

Some of the essentials of accident prevention work may be enumerated as follows:—

(*a*) The setting aside of time for the investigation of the subject of accident prevention.

(*b*) Careful and continual inspection of the premises where workmen are employed.

(*c*) Investigation of the cause of each accident and the recording and tabulating of the same.

(*d*) The study of the causes of accidents which occur in like industries and under similar conditions elsewhere.

(*e*) The installation and maintenance, wherever possible, of mechanical safeguards and safety appliances.

(*f*) The education of the workman as to the dangers of his occupation and the best means of avoiding accidents in connection with his work.

(*g*) Securing the co-operation of the workman in the efforts of the employer to provide safety and prevent accidents.

In accident prevention work as in every field of human endeavor it pays to start right. Investigate the subject first of all. Get in touch with the safety movement. Get the safety spirit. Learn what others are doing. Time spent in this way is spent most profitably.

Accident prevention may not be accomplished without inspection. Inspections should be thorough, in order that nothing dangerous may be overlooked. They should in all cases be made by competent and practical persons who have a technical and practical knowledge of dangerous places. Inspection should also be made by every person in the plant, particularly in the locality in which he is employed. Inspections should be frequent—conditions change constantly.

Investigate Causes of Accidents.

When an accident happens the first thing to be done after caring for the injured person is to investigate the cause, in order to prevent its repetition. We take issue with those persons who declare that "accidents just happen." Such a statement is not much more than an effort to evade responsibility. It is an unfounded and pernicious statement, tending to put a premium on carelessness and to promote accidents. Every accident is capable of analysis and in nearly every case the cause may be located. This should be done and a record kept for future guidance. Such statistics, carefully kept, are of great value.

Every man who has the safety of his employees at heart and every workman who desires industrial safety for himself and for his fellow workmen will give attention to happenings outside of his own plant. Machines and methods are proved to be dangerous by observing their operation and the results in different localities. The larger the field covered the more valuable will be the data gathered. Circular saws, for instance, cut, kick and kill in the same way in every part of the world. A serious accident may not have happened in a particular shop in all of its history, but this circumstance does not constitute an excuse for neglect. No plant, no industry, no locality is immune from accidents. The most successful safety engineers profit by the experience of others.

Dangerous Features May Be Made Safe.

There are many dangerous features of workshops that may be made comparatively safe by means of guards. It is important that set screws, gears, dead ends and all other man-killing parts of machinery be covered, enclosed or eliminated for the same reason that wild beasts are shut up or shot. All of this may be done without in the least cutting down the output of a factory—indeed it tends to add to the output by giving the workman a sense of security. It is not enough, however, that safety devices be installed. They must be maintained. Some one must see to it that safeguards are both kept in order and in place. If for the exceptional job a guard must be removed, it should be immediately replaced.

No workman should ever enter a dangerous occupation without being made to give strict attention to the dangers connected with it. He should be made to do this not only for his own protection, but also for the sake of his fellow workmen who may be injured as a result of his lack of precaution

Every employer is morally responsible for the safety of his employees just so far as he, by the exercise of his authority, may prevent their being injured. Nor is it entirely an ethical question. It is not profitable to the employer for his workmen to be injured. Aside from the humanitarian aspect of the question, in a general way physical injuries to the workman mean financial loss to the employer. Therefore for all of these reasons, ethical, humane and economic, the employer should instruct and warn the workman of danger. No task should ever be imposed which in its performance will endanger the life or limb of the workman. Workmen may be warned by word of mouth, by the judicious use of signs distributed about the plant and by literature. Warnings must be persisted in, otherwise they are of no avail. Many workmen are naturally careless, many others are purposely negligent, others view with suspicion efforts that have the appearance of altruism.

Every possible effort should be made to secure the co-operation of the workmen in the safety movement, for progress in accident prevention beyond a certain point is utterly impossible if the opposition or indifference of the workmen to this important work is not overcome.

In conclusion we may affirm that luck as a factor in accidents is always more or less under the control of man; that both good and bad luck are produced by the operation of natural forces; that these forces move according to well-defined rules, or laws; and that men are lucky or unlucky just in proportion to their understanding of these laws and their disposition and ability to live and act in harmony with them.

AD VALOREM AND SPECIFIC DUTIES

By JOHN HADLEY HIGGINSON
From "Tariffs at Work"

The comparative values of these two methods of raising revenue and protecting domestic industry are now being discussed in connection with tariff revision

WHEN allowance has been made for the undoubted merits which the ad valorem system would possess under ideal conditions, it is necessary to recognize that those conditions do not exist. Not all importers are honest and not all government officials are incorruptible. The consequence is that the history of the United States tariff reveals a continuous series of attempts at under-valuation, smuggling, corruption and fraud which reflect very unfavorably upon the American commercial conscience. It would be surprising if the officers of the Federal government, holding office, for the most part, on a somewhat precarious tenure, had been able invariably to resist those attempts. Even if the Customs officers were always men of unimpeachable integrity, the task imposed upon them would be an almost impossible one. Under any tariff system it is necessary to ascertain the precise nature and quantity of the imported commodities, but when to this is added the determination of the value of goods varying infinitely in description and quality, in grade and texture, in rarity and artistic effect, in all those innumerable particulars which affect supply and demand, the judgment of the most honest and expert appraisers is necessarily sometimes at fault. At a large port like New York, and to a less extent at ports like Philadelphia and Boston, the problem is simplified by the specialization of the appraisers' functions. The men there employed on the work of valuation are officers with an extensive technical knowledge, an intimate acquaintance with the condition of the markets both domestic and foreign and a thorough familiarity with rates of freight, insurance and trade commissions. The employment of such experts is, however, impossible at many of the ports at which imported goods may be entered for appraisement, and although it is the practice to refer doubtful cases to the trained valuers at a larger port, there must be many cases in which the proper duty is evaded. This uncertainty stimulates the importers' natural tendency to under-valuation.

Attempts at under-valuation seem indeed to be the inevitable outcome of the ad valorem system. A large proportion of the goods landed in New York are sent for sale at the best price which can be obtained, and there is consequently no fixed value on importation. The handling of these consignments is largely under the control of men who are not citizens of the United States, but are foreigners residing, temporarily or permanently, in New York, and possessing but little scruple with regard to attempts to defraud the Federal government.

However admirable the ad valorem system may be from the theoretical point of view, the balance of advantage lies from the standpoint of scientific tariff administration, under actual modern conditions, on the side of specific duties. These duties have, of course, their peculiar disadvantages. It is often impossible even for those with long and intimate experience of a particular industry to estimate with accuracy the precise effect which given specific duties may produce. As, for example, it was found necessary to consult two thousand technical specialists representing the various sub-divisions of trade and industry in the preparation of the last German tariff, the rates in which are almost entirely specific. Again, the incidence of specific duties upon the various grades of goods is so irregular as to be inequitable. With a specific duty of seven shillings per pound upon imported cigars, for instance, as in England, it is clear that the smoker of the threepenny cigar is contributing to the national revenue a far greater amount in proportion to his means, or at any rate to his expenditure, than the purchaser of the genuine Havana. The attempts of the legislator to impose a given proportion of his taxation upon particular classes of the community are thus, under a system of specific duties, to a great extent frustrated. The specific system also implies a much more elaborate and detailed classification of the tariff schedule than is necessary on an ad valorem basis of assessment.

Dispenses with Appraisement.

The chief advantage by which the specific system is recommended by the tariff administrator is that it dispenses with the nesessity for the elaborate appraisement machinery such as has been described as existing in the United States and Canada. The specific tariff schedule, it is true, needs to be framed with greater care for detail and a more minute classification of commodities, but, when so framed, it is more easily put into practice. Nor does it afford those opportunities for errors of judgment or for clandestine fraud to which the ad valorem system lends itself. The only factors which the Customs officer is called upon to consider are the weight or measurement of the goods and the rate of duty to be applied. Of course even these give rise from time to time to difficult questions of definition and classification, but the difficulties are neither so numerous nor so great as in those cases where the elusive problem of value has also to be solved.

It cannot be said that fraud is impossible under the specific system, for the commodity in connection with which huge frauds were recently perpetrated in the United States, namely, sugar, is one upon which a specific and not an ad valorem duty is there levied. But, on the whole, the specific system offers much less inducement to deceit and dishonesty than the ad valorem system. These considerations naturally weigh very heavily in estimating the merits of the two systems from an administrative standpoint, and, although the United States and Canada have chosen to adhere to their own system rather than to come into line with the modern movement towards specific duties, it is more than doubtful whether they have gained by so doing, and it is conceivable that at no distant date their statesmen may discover that revenue, commercial integrity and the efficiency of the public departments are best safeguarded by a system of specific duties.



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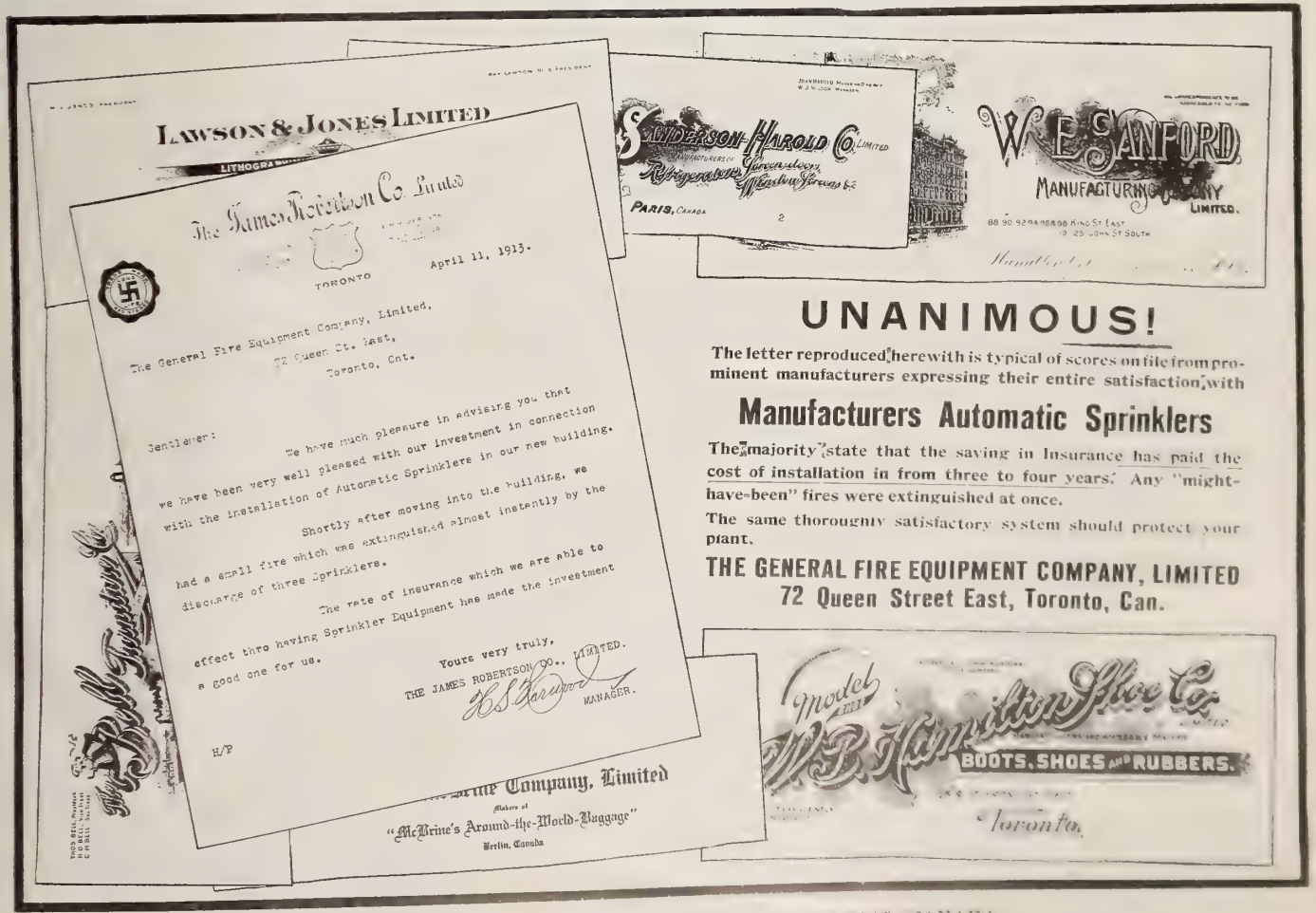
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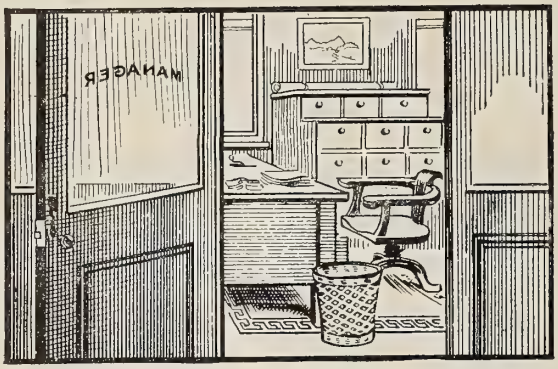
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OUR TRADE WITH GERMANY.

INDUSTRIAL CANADA takes pleasure in publishing the following letter from Mr. J. Henry Peters, Imperial German Consul:—

"EDITOR INDUSTRIAL CANADA:—

"It has been frequently held and openly expressed by prominent Canadians, that Germany has always had the best of the trading with Canada, the balance being in her favor at the ratio of about three to one. The conclusion drawn was, that Germany could do more for Canada and thus prove herself a valuable customer, to whom special consideration should be shown.

"I can state of my own knowledge, and such public men as Mr. W. K. George, S. T. Somers, and others, who visited Germany lately and met many prominent and influential personages, will readily affirm, that the Germans are most willing to give evidence of their keen desire to bring about a better understanding with Canada and to open their markets to Canadian trade.

"I now take great pleasure in sending you below an official statement, showing the trading between the two countries from 1908 to the end of 1912.

"Since the removal of the surtax on German goods the atmosphere in Germany has cleared considerably in favor of Canada. The German statistics eliminate gold and silver, and Germany *consumed* all these imports and now shows up better than many other countries. I am convinced that this current year will show even better results for Canada.

"According to official German statistics, German imports *for home consumption* from Canada, exclusive of gold and silver, were for the fiscal years:—

1908	7,076,000	mark
1909	8,389,000	"
1910	10,636,000	"
1911	23,956,000	"
1912	58,130,000	"

"German exports to Canada were for the fiscal years:—

1908	20,302,000	mark
1909	24,821,000	"
1910	36,587,000	"
1911	42,870,000	"
1912	54,254,000	"

"For the first time, since the existence of German trade statistics, have Canadian exports to Germany shown an increase over German exports to Canada."

DEATH OF MR. J. H. NEW.

Mr. J. H. New, President of the Hamilton and Toronto Sewer Pipe Co., Ltd., died on July 17th. The deceased was a well-known member of the Association.

JOIN STANDARD PAINT.

Mr. John Lowrie, formerly Canadian Manager of Wm. Harland and Son, and for the past three years traveller for the Ault and Wiborg Company of Toronto, calling on the factories in Western Ontario, has joined the Sales staff of the Standard Paint and Varnish Company of Windsor, Ontario.

Mr. Lowrie will have charge of the selling end in United States and Canada of these goods, besides looking after several accounts in Canada for The Standard Paint and Varnish Company.

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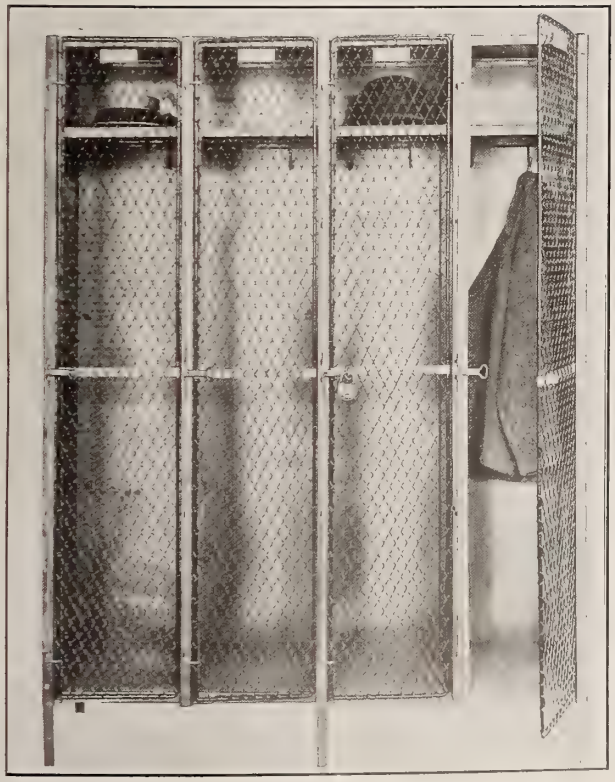
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FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of July, 1913.

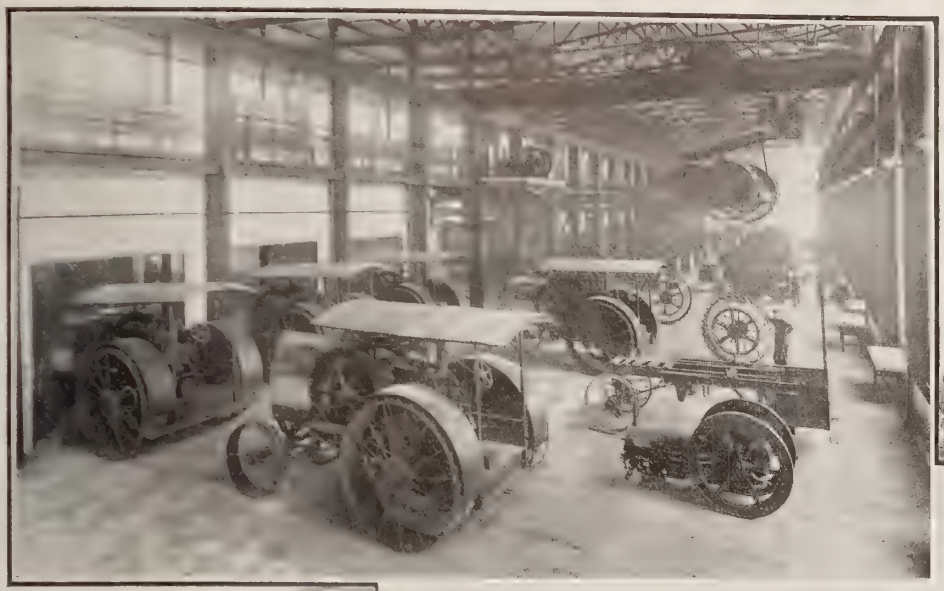
(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload lots; L.C.L., less than carload lots.)

Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
E 2602 cancels E 2322	E 2214 cancels E 1922	Aug. 8-13	Class rates C. P. stations to points on the N.Y.C & H.R. R. in the U.S. Advance.
E 2604	E 2216	Aug. 15-13	Pulpwood, C.L., C.P. stations to points in the U. S. New rates.
E 2605 cancels E 2585	E 2217 cancels E 2193	July 17-13	Commodities, points in Eastern Canada to Vancouver, Westminster, Victoria, etc. Reduction.
E 2609 cancels E 2244	E 2221 cancels E 1842	Sept. 1-13	Equalization allowance at C. P. stations.

Grand Trunk Railway.

Sup. 44 E 150	Sup. 44 C.B.Y. 5	July 4-13	Bar iron, C.L., Hamilton to Hawkesbury, 19½ per 100 lbs. Reduction.
Sup. 19 E 1011	Sup. 19 C. I. 25	July 9-13	Iron commodities from Port Robinson at same rate as Welland. Reduction.
Sup. 21 E 2359	Sup. 21 E 1959	July 25 (R) Aug. 20 (A)	Paper commodities between C. P. stations. Reduction.
Sup. 40 E 2492	Sup. 40 E 2092	July 7-13	Commodities between C. P. stations and from and to connecting lines. Reduction.
Sup. 41 E 2492	Sup. 41 E 2092	Aug. 1-13	Commodities between C.P. stations. Reduction.
Sup. 1 E 2505	Sup. 1 E 2107	Oct. 1-13	Cancellation of Cartage tariff. Advance.
Sup. 10 E 2529	Sup. 10 E 2133	Aug. 11-13	Commodities C.P. stations to points in the U. S. Reduction. Advance.
Sup. 12 E 2538	Sup. 12 E 2144	July 14-13	Switching and interswitching. Reduction.
Sup. 13 E 2538	Sup. 13 E 2144	Aug. 16-13	Switching and interswitching at C. P. stations. Advance.
Sup. 4 E 2541	Sup. 4 E 2147	Oct. 1-13	Cancellation of cartage.
Sup. 2 E 2167	Sup. 2 E 2560	Oct. 1-13	Import traffic at St. John. Cancellation of cartage clause.
Sup. 7 E 304	Sup. 7 E 125	Oct. 1-13	Cancellation of cartage.
Sup. 3 E 374	Sup. 3 E 159	Oct. 1-13	Cancellation of cartage.
Sup. 9 E 937	Sup. 9 E 528	Oct. 1-13	Cancellation of cartage.
Sup. 23 E 1114	Sup. 23 E 697	Oct. 1-13	Cancellation of cartage.
Sup. 2 E 2116	Sup. 2 E 1712	July 8-13	Cancellation of rate on structural iron and stel from Sault Ste. Marie, Ont., to C. P. stations. Advance.
Sup. 17	Sup. 17	Aug. 4-13	Reshipping and stop



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Sheet Metal Stamped Ware Manufacturing
Asbestos Fibrizing Mills
Cotton Mills
Concentrators, Stamp Mills
Jute Mills
Knitting Mills
Paper Mills
Pulp Mills
Rolling Mills
Saw Mills
Tube Mills
Woollen Mills
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Railway Car Shops
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Linoleum Works
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Water Works
Rubber Reclaiming Works
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Wharfs
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We are Engineers and Architects. For more than twenty years we have been designing Factories, Foundries, Mills, Warehouses, Steam and Hydro-Electric Plants all over Canada.

During the years we have been in business our own organization has grown.

Our staff is complete. It includes Architects, Mill and Structural Engineers, Civil, Mechanical and Electrical Engineers.

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It will be to your profit to consult us when you are considering the erection of a new plant or the extension of your present one.

T. Pringle & Son, Limited

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PRESTON METAL CEILINGS PROTECT Shops, Offices :: and :: Warehouses

NOT only do they help any building to resist fire, but they protect the contents of the room they cover from water-damage in the event of fire in the room above.

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With them you can beautify unsightly parts of your plant, and thus promote neatness in your help.

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Use these perfected ceilings and our other interior building specialties to make any part —or the whole—of your buildings absolutely immune to fire.

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Not costly either.

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LIMITED
PRESTON, ONT., and MONTREAL, QUE.

We make every kind of SHEET METAL BUILDING MATERIALS AND DETAILS.

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Sheet, Ingot, Rod, Wire, Tubing, Rivets, Extruded Shapes, Bronze Powder and Fabricated articles.

We solicit your enquiries and will be glad to serve you. Our experience and knowledge of the metal will be of value to you.

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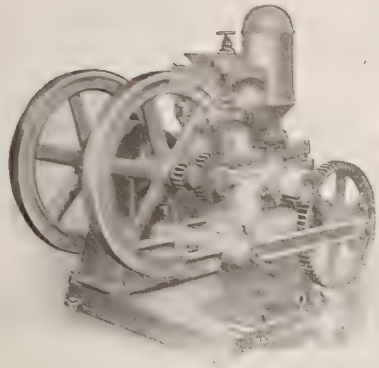
NORTHERN ALUMINUM CO., LIMITED

Canadian Pacific Railway.

C.R.C.	R.R.No.	Effective.	Description.
E 2141	E 1737		off arrangements. Advance.
Sup. 18 E 2141	Sup. 18 E 1737	July 11-13	Reshipping and stop off arrangements. Reduction.
Sup. 19 E 2141	Sup. 19 E 1737	July 15-13	Reshipping and stop off arrangements. Reduction.
Sup. 14 E 2332	Sup. 14 E 1932	July 14-13	Export traffic, C. P. stations to Montreal and Quebec. Reduction. Re-issue.
Sup. 20 E 2359	Sup. 20 E 1959	July 10-13	Paper commodities between C.P. stations. Reduction. Re-issue.

Grand Trunk Railway.

Sup. 52 E 1240	Sup. 52 E 12	July 7-13	Acetate of lime, C.L., Trout Creek to Montreal, 16c. per 100 lbs. Reduction.
Sup. 12 E 2374	Sup. 12 C.R. 111	July 11-13	Re-shipping and stop-off arrangements. Addition.
Sup. 60 E 2644	Sup. 60 C. Y. 27	July 10-13 (R) Aug. 7-13 (A)	Commodities between G. T. stations. Advance. Reduction.
Sup. 62 E 2644	Sup. 62 C. Y. 27	July 16-13	Bleaching powder and caustic soda, Sandwich, Ont., to Valleyfield, P.Q. Reduction.
Sup. 1 E 2683	Sup. 1 C.R. 139	Oct. 1-13	Cancellation of cartage arrangements.
Sup. 11 E 2677	Sup. 11 S. 88	July 8-13	Local switching. Reduction.
Sup. 12 E 2677	Sup. 12 S. 88	Aug. 16-13	Local switching. Advance.
Sup. 4 E 2681	Sup. 4 I 140	Oct. 1	Cancellation of cartage clause on import tariff from Montreal wharf.
Sup. 5 E 2684	Sup. 5 C.U. 72	Aug. 11-13	Commodities between G. T. stations. Reduction.
Sup. 2 E 2696	Sup. 2 I 144	Oct. 1-13	Cancellation of cartage clause and import tariff from Portland.
Sup. 2 E 2709	Sup. 2 C.R. 145	Aug. 13-13	Weighing of C. L., traffic arrangements and allowances. Reduction.
Sup. 1 7 2740	Sup. 1 I. 146	Oct. 1-13	Cancellation of cartage clause in Quebec import tariff.
E 2752 cancels E 1593	C.P. 99 cancels C.P. 42	Aug. 1-13	Woodpulp, Sherbrooke to points in U. S. Change. Re-issue.
E 2753 cancels E 2306	C.P. 100 cancels C.P. 78	Aug. 1-13	Woodpulp, C.L., Danville, Kingsey and Bromptenville, P.Q., to points in U. S. Change. Re-issue.
E 2755 cancels E 2567	C.P. 101 cancels C.P. 94	Aug. 22-13	Woodpulp, C.L., Merritton and Thorold to points in U. S. Reduction.
Sup. 38 E 2092	Sup. 38 E 2492	June 26-13	Commodities between C. P. stations. Re-issue. Reduction.
Sup. 16 E 2141	Sup. 16 E 1737	June 23-13	Re-shipping, Stop over, and special arrangements. Reduction. Advance.
Sup. 10 E 2538	Sup. 10 E 2144	June 30-13 (R) July 26-13 (A)	Switching at C. P. Stations. Advance. Reduction.
Sup. 57 E 2644	Sup. 57 C.Y. 27	July 28-13	Iron and Steel, Bridge and Structural, c.l. Dominion to Pt. Levi, 10c. per 100 lbs. Re-issue. Advance.



MASSEY-HARRIS GASOLINE ENGINES

For the Contractor and Builder

FOR construction work of various kinds, a Massey-Harris Gasoline Engine will be found most useful. Above is shown one of our Engines connected direct to a Pump, and below is an Engine connected direct to a Diaphragm Suction Pump. Both of these combinations are very handy

The Massey-Harris Contractor's Hoisting outfit is an indispensable part of the contractor's equipment. The engine is geared direct to the Hoisting Drum, although, when required for other purposes, it can be detached.

These Engines are also furnished in Portable outfits, from 4½ horse power up, mounted on steel-wheeled trucks. A reputation for reliability economy and convenience is what Massey-Harris Gasoline Engines have won for themselves throughout Canada and the United States, and every one sold brings in somebody else who wants one.

Information as to dimensions and prices of Engines may be had from any Massey-Harris Agent, or by writing direct to any of our Branches.

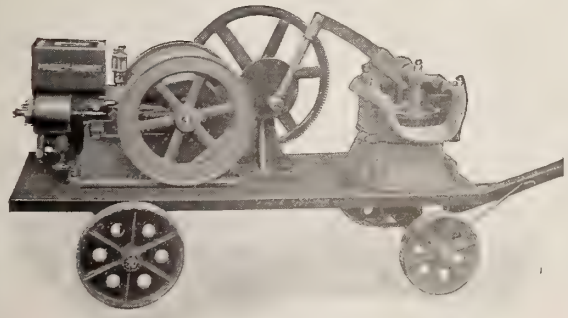
MASSEY-HARRIS COMPANY, LIMITED

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Montreal, Moncton, Winnipeg, Regina, Saskatoon, Yorkton, Calgary, Edmonton.

Agencies Everywhere





Ohio Floods Don't Affect

BERRY BROTHERS' VARNISHES

HERE is a picture of the library of W. B. Shuler's residence at Hamilton, Ohio. During the recent flood the water rose to such a height that it flooded the entire first floor of the house, reaching to the top of the bookcases and just touching the lowest of the books piled on top.

When the flood receded the room was coated with slime and mud. Apparently everything was ruined. But a generous application of soap and water showed that the varnish on floor, walls, doors and bookcases was as fresh and beautiful as ever.

The floor was finished with Berry Brothers' "Liquid Granite;" other trim with Berry Brothers' "Luxeberry Light Wood Finish." The house was built in 1911.

Similar experiences were reported from all through the flooded district. Everywhere Berry Brothers' Varnish stood the flood test. Water and mud could not dim its lustre nor cause it to turn white.

Isn't this the kind of varnish you ought to be using in your business?

We make a varnish for every purpose.

Our special representative will call on any manufacturer interested in better and more economical finishing.

Write us about your varnish problems. It will place you under no obligation and may mean a great deal to you.

Send for free booklet "Choosing Your Varnish Maker"—of interest to all classes of Varnish users.

BERRY BROTHERS

(ESTABLISHED 1858)

Largest Manufacturers of Varnishes, Shellacs, Air-Drying and Baking Japans, Lacquers, Stains, Fillers and Driers in the World.

WALKERVILLE, ONTARIO

If It Pays Others, It Should Pay You To Use Our Oxy-Acetylene Plants

See if you cannot improve your process of manufacturing and decrease your maintenance cost by using

OXY-ACETYLENE WELDING

of metals and cutting of iron and steel in any form or shape.

L'AIR LIQUIDE SOCIETY

Oxygen Manufacturers Welding & Cutting

MONTREAL - - TORONTO

The Montreal Lithographing Company, Limited

High Class Lithographers and Designers of

CALENDARS SHOW CARDS

LABELS OFFICE STATIONERY

ADVERTISING PLAYING CARDS

Office and Works

ONTARIO STREET & PAPINEAU AVENUE

MONTREAL, CANADA

Grand Trunk Railway.

C.R.C.	R.R.No.	Effective.	Description.
		Aug. 1-13	Building Materials between G. T. Stations. Advance. Reduction.
E 2552 Sup.103	C.D. 65 Sup.103		

Erie Railway.

327	.....	July 21-13	Classes Erie R. R., points to Stations in Canada.

Michigan Central Railway.

2043 cancels 1980	9271-A cancels 9271	Sept. 1-13	Commodities, M. C. stations to points in in U. S. Reduction.

Toronto, Hamilton & Buffalo Railway.

Sup. 32 749	Sup. 32 216	July 9-13	Commodities T. H. & B. stations to various points. Reduction. Addition.

Baltimore & Ohio Railroad.

Sup. 10 1044	———	Aug. 1-13	Commodities B. & O. stations to points in Canada.
Sup. 11 1044	———	Aug. 15-13	Commodities B. & O. stations to points in Canada.
Sup. 21 985	———	Aug. 8-13	Iron and steel, B & O. stations to points in Canada.
Sup. 8 881	———	July 28-13	Classes, B. & O. stations to points on C. P. R.

Pennsylvania Railroad.

Sup. 2 547	———	Aug. 18-13	Commodities P. R. R. stations to points in Canada.
G.O. 563 cancels G.O. 539	———	Aug. 1-13	Iron and steel, P. R. R. stations to Montreal.
Sup. 1 G.O. 4352	———	Aug. 1-13	Commodities P. R. R. stations to points on G.T.R. in Canada.

NEW VICE-PRESIDENT FOR GRAMM MOTOR.

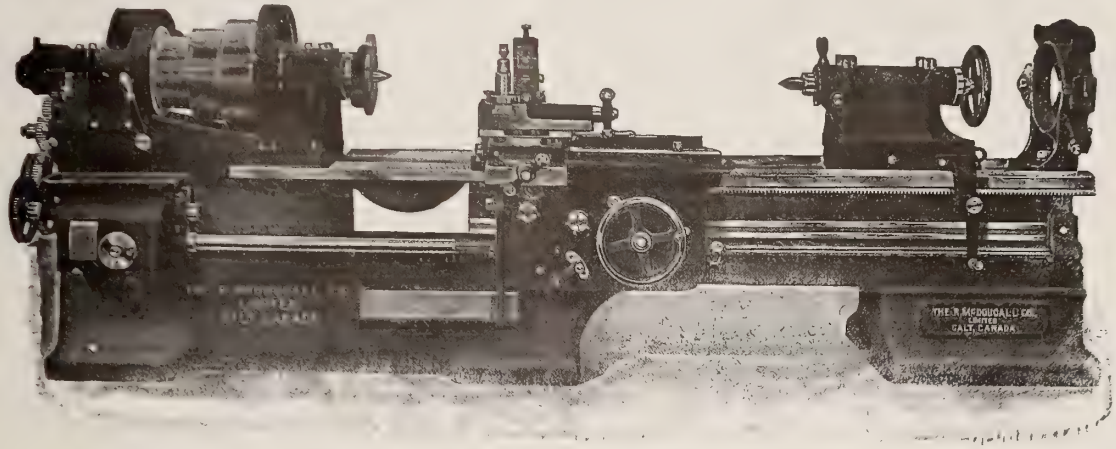
Mr. W. M. Bennett, for the past two years Vice-President and General Manager of the International Electromotive Company, has been made Vice-President of the Gramm Motor Truck Company of Canada, Limited, Walkerville, Ont. Mr. H. W. Acason remains President and Mr. F. H. Galusha, Secretary.

MANUFACTURING IN CANADA COMPARES WELL WITH THE UNITED STATES.

(Bradstreet's.)

That Canada's manufacturing enterprise compares favorably with United States is well indicated by the following figures. With a population of one-twelfth that of the United States, Canada had 19,218 establishments in 1910, compared with a total of 268,491 across the line in 1909. Ours were capitalized at 1¼ billion dollars; those of the United States 18½ billion. Our wages amounted to $197,000,000 against 3½ billion over there. Our products were nearly 1¼ billion, compared with 20½ billion. Our materials were worth $601,509,000 against nearly 12¼ billion in the United States. Thus our heavy borrowings and adverse trade balance are accounted for by our commercial activity.

WHERE LATHE SOLIDITY PAYS



THE first essential for clean work, speedy work, heavy cutting, or correct lathe finishing, is absolute lathe solidity and a properly designed rest.

This is found in the McDougall.

As a tool of perfect alignment it is unsurpassed. It is unsurpassed in its "flexibility" in an economic sense—easy speed changing, easy feed changing, easy changes of length, easy adjustment.

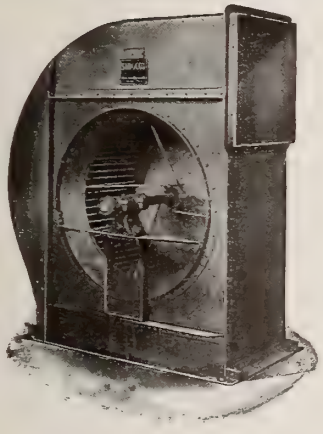
Write us for full descriptive folder. This lathe means easy and quick production.

THE R. McDOUGALL CO. LIMITED - GALT, CANADA

Cable Address : DOUGALT. Code : A.B.C. 5th.

CANADIAN FAIRBANKS COMPANY, Sales Agents for Canada

Showrooms: Montreal, Toronto, Ottawa, Winnipeg, Saskatoon, Calgary, Vancouver, St. John, N.B.



"Sirocco" Fans handle immense volumes of air for their small size, hence require small floor space for their installation — a feature of monetary value.

"Sirocco"

TRADE MARK

MADE IN CANADA

The reason why you should insist on "Sirocco" Fans being used is—they save money.

Because of our superior engineering service in the application of "Sirocco" for producing most efficient results.

Because of the high mechanical efficiency of "Sirocco" Fans, which means low Horse Power consumption.

Because of the reasonable first cost—low installation cost and low maintenance charges.

Our engineers are masters of the Science of Pneumatics, and our Production Department is equipped with master workmen.

Write for Bulletin No. 3402 on "Sirocco."

CANADIAN Sirocco COMPANY LIMITED

WINDSOR, ONTARIO.

THE CANADIAN BANK OF COMMERCE

Paid-up Capital $15,000,000
Rest $12,500,000

Drafts on Foreign Countries

Every Branch of this Bank is able to issue, on application, drafts on the principal points in the following countries :—

Africa	France	Peru
Arabia	French Cochin-China	Philippine Islands
Argentine Republic	Germany	Portugal
Australia	Great Britain	Roumania
Austria-Hungary	Greece	Russia
Belgium	Holland	Servia
Brazil	Iceland	Siam
Bulgaria	India	Siberia
Ceylon	Ireland	Soudan
Chili	Italy	South Africa
China	Japan	Spain
Crete	Java	Straits Settlements
Cuba	Malta	Sweden
Denmark	Manchuria	Switzerland
Egypt	Mexico	Turkey
Faroe Islands	Norway	United States
Finland	Panama	Uruguay
Formosa	Persia	West Indies

THE ROYAL BANK OF CANADA

Incorporated 1869

Capital Authorized . . . $25,000,000
Capital Paid up $11,560,000
Reserve & Undivided Profits $13,000,000
Total Assets $180,000,000

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Branches in every Province of the DOMINION OF CANADA and in NEWFOUNDLAND; in HAVANA and throughout CUBA, Porto Rico and Dominican Republic; BAHAMAS, Nassau; BARBADOS, Bridgetown; JAMAICA, Kingston; TRINIDAD, Port of Spain and San Fernando; BRITISH HONDURAS, Belize.

LONDON, ENG., OFFICE—Princes St., E.C.

NEW YORK AGENCY—Corner William and Cedar Sts

Savings Department at All Branches

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

760. **Biscuits.**—A Newfoundland commission agent asks to be placed in touch with Canadian manufacturers of soda biscuits, etc.

761. **Tiling.**—A Newfoundland firm desires communication with a Canadian manufacturer of interlocking rubber tiling.

762, **Oaks and Hardwoods.**—A firm in Holland of good standing wishes to obtain quotations from Canadian dealers for shipments.

763. **Leather.**—Firm in Holland wishes to get in connection with makers of leather in Canada.

764. **Veneer.**—A Liverpool firm seeks supplies of Canadian three-ply veneer and boards, and invite offers from Canadian manufacturers of same.

765. **Starch.**—A London firm desires the addresses of Canadian manufacturers who are in a position to export starch in lump and powder.

766. **Furniture.**—A Newfoundland firm desires correspondence with a Canadian manufacturer of furniture.

767. **Hides and Skins.**—An Indian firm exporting hides and skins wishes to enter into business relations with tanners of leather in Canada.

768. **Harness Leather and Webbings.**—A Newfoundland firm asks for addresses of Canadian manufacturers of harness leather and webbing.

769. **Hickory Turned Shafts for Golf Clubs.**—A South African importer of sporting goods desires to be placed in communication with a Canadian firm of manufacturers and exporters of hickory turned shafts for golf clubs. Quotations to be f.o.b. seaboard.

770. **Material for Pianoforte Keys.**—A London manufacturer of pianoforte keys is desirous of purchasing material from Canadian woodworking firms.

771. **Furs.**—A Glasgow house asks to be put in touch with Canadian exporters of raw skins.

772. **Metal Scrap.**—A London metal merchant is prepared to purchase all classes of metal scrap.

773. **Excelsior.**—A Newfoundland manufacturer of furniture asks to be placed in communication with Canadian manufacturers of excelsior.

774. **Paper.**—A firm of general merchants at Sydney, Australia, desires to get into touch with paper mills in Canada open to interest themselves in the Australian market. They are particularly desirous of purchasing brown wrapping paper.

775. **Wood Pulp.**—A correspondent in Belgium makes inquiry for the names of Canadian manufacturers of wood pulp, either chemical or mechanical.

The OLD-STYLE Cotton Roller Towels

ARE **harbingers of disease, are unclean, unsanitary, dangerous,** and when used over and over again by many different persons form a dreadful lurking-place for all kinds of disease — thus employees suffer.

USE THE NEW

EDDY SANITARY PAPER TOWELS

They protect health, are soft, absorbent, chemically pure, made from clean wood-pulp, snow-white in color, packed in dust-proof cartons.

To use an **Eddy Paper Towel** to advantage, place it gently on the face or hands and it will immediately absorb all moisture.

These Towels are finely crimped for this purpose and because no rubbing is necessary they protect the skin against irritation. Use an **Eddy Paper Towel** once and throw it away. This assures a clean, dry wipe with no chance whatever of contamination.

Hang a roll of **Eddy's Paper Towels** up in each of your departments and your employees will appreciate it.

Eddy's Sanitary Towels are put up in rolls, each roll containing 500 towels, sized 14 x 15.

They are also put up in sheets, in envelopes, of 25 or 50 in each parcel, sizes 7 x 7½, 14 x 7½.

Write for further particulars

The E. B. EDDY COMPANY Limited
HULL, CANADA

Branches and Agencies at Halifax, St. John, Quebec, Montreal, Ottawa, Brockville, Kingston, Toronto, Hamilton, London, Regina, Fort William, Winnipeg, Moose Jaw, Saskatoon, Calgary, Lethbridge, Edmonton, Camrose, Vancouver and Victoria.

HOW DO YOU CARRY YOUR FUNDS WHEN TRAVELLING?
Surely not in Cash!

THE SAFEST AND MOST CONVENIENT WAY TO CARRY YOUR MONEY IS IN THE

TRAVELLERS' CHEQUES
OF THE
DOMINION EXPRESS COMPANY

These Cheques show on the face thereof the exact amount you will receive in the various countries throughout the world, and as they are accepted by first-class Stores, Hotels, Tourists Agencies, Express, Railway and Steamship Agencies, Banks and Bankers, in addition to our regular correspondents, no difficulty is experienced in getting them cashed at any hour of the day. They are issued in denominations of $10, $20, $50, $100 and $200, are self-identifying, and protect you in the event of the loss of the cheques.

OVER FIFTEEN THOUSAND REGULAR CORRESPONDENTS THROUGHOUT THE WORLD

For Further Particulars Apply to our Local Agent

Toronto City Offices:
48 YONGE ST. and 1330 QUEEN ST. W.

Agencies in all C.P.R. Stations and Branch Agencies in Drug Stores, etc.

Conveniently Located in Residential Districts.



MADE IN CANADA

Canadian Hart Wheels

CUT FASTER LAST LONGER
Than any other wheels on the market

Tell us the service you want performed and we will supply you with an abraser that will save you time, money and worry.

Send for one of our catalogues and tell us your troubles. We do the rest. :: :: :: ::

CANADIAN HART WHEELS LIMITED
450 BARTON ST. EAST
Hamilton :: :: :: Ontario

AMONG THE INDUSTRIES

The A. MacDonald Co. will build a warehouse at Winnipeg, Man.

The Aetna Biscuit Co. will build a $40,000 factory in Montreal.

A warehouse costing $4,000 will be built by Mr. J. W. Gillard, in Toronto.

Tenders have been received for a factory for W. A. Mahoney at Brighton, Ont.

The Metallic Roofing Co., Ltd., will erect a warehouse costing $30,000 in Winnipeg, Man.

John Skinner & Son contemplate the construction of a creamery in West Lorne, Ont.

The British Construction Company will build a shoe factory in Montreal, costing $11,000.

Canadian Flax Mills, Ltd., Toronto, will build a flax mill costing $150,000 in St. Catharines, Ont.

The erection of a factory in Montreal, Que., is contemplated by the Union Switch and Signal Co.

Flour mill, costing $18,000, will be erected in Innisfree, Alta., by Robert Weder, Port Saskatchewan.

The Coquitlam Terminal Co., Vancouver, B.C., will erect an hotel, costing $60,000, in Coquitlam, B.C.

Plans are in progress for the erection of a warehouse in Fort William, Ont., by the Fife Hardware Company.

Plans are in progress for two brick yards in Georgetown, Ont., for the Dominion Clay Products Co., Toronto.

Mr. H. B. Bostaph, Tilbury, Ont., contemplates equipping a brick and tile manufacturing plant at a cost of $38,000.

Victoria Phoenix Brewing Co., Victoria, B.C., will remodel the Commercial Hotel there, to comply with new liquor regulations.

The erection of a warehouse for glass in Edmonton, Alta., is contemplated by Messrs. Pilkington & Sons, St. Helen's, Lancashire, England.

The erection of a plant is contemplated by the Canadian Forging Co., Tilbury, Ont. A by-law has been passed granting a loan of $10,000 to the company.

The Staince Company contemplate the erection of a four-storey factory and warehouse in Edmonton, Alta., for the manufacture of iron beds, spring mattresses, etc.

A straw board mill has been planned by the Flax Products Co., for Regina, Sask. The Company will manufacture building paper, wall board, chip board, and straw board.

A brick manufacturing plant has been planned by the Provincial Government in Mimico, Ont. The work will be done by prison labor, and the capacity will be $10,000,000 per year.

INDUSTRIAL CANADA

ISSUED BY

The CANADIAN MANUFACTURERS ASSOCIATION.

INCORPORATED.

Vol. XIV | TORONTO, SEPTEMBER, 1913 | No. 2

INDUSTRIAL CANADA

Issued monthly as the official publication of the Canadian Manufacturers Association (incorporated), and devoted to the advancement of the industrial and commercial prosperity of Canada

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The Hamilton Centennial.

MODERN city dwellers could not appreciate fully the Centennial Industrial Exhibition which was held in Hamilton from August 11th to 16th. They were too near the phenomenon to realize its significance. The real judges were certain brown faced old farmers from the surrounding townships. They learned the early history of Hamilton from their pioneer fathers, and their eyes have measured annually the city's growth during the last fifty years. They remember the forests, swamps, corduroy roads, log houses, cradles, scythes, homespun and pewter of the Hamilton district. What a distance we have travelled, measured by the farmer visitors of the Centennial.

No corduroy roads? Refer to the up-to-date exhibit of the railways. Were you looking for log house models? Better spend your time examining the wonderful display of the manufacturers of building materials. Rough hewn benches and tables? Look at that furniture on the right of the aisle. Cradles, scythes and reaping hooks? Over there you will see binders, drills, motor waggons, hay tedders, churns, washing machines run by small motors. Tallow candles and pine knots? Not here, but notice that exhibit of electrical devices. Smithy tools? No, but stop before those monstrous machines which make machinery as easily as a confectioner pulls taffy. "Cabbage leaf" tobacco? In the other building they will roll your cigarettes, make your cigars, or offer you choice brands for your pipe. As for homespun, the industry has languished but that clothing exhibit may interest you.

Every article that a modern man or woman needs was there, and every article was manufactured in Hamilton. No more striking proof could be given of the astonishing development of Canada than the excellence and variety of the manufactured articles displayed. The industrial exhibition was a silent but convincing testimonial of the potentialities of Hamilton. What that city has done industrially, as illustrated by the exhibition, is only an indication of what that city can and will do. The manufacturers of Hamilton are to be congratulated for their enterprise and also for the quality of their exhibits.

The United States Industrial Commission.

PRESIDENT WILSON has appointed a "Commission on Industrial Relations." Legislation for its creation was passed when President Taft was in office but his appointees were not confirmed. The new commissioners will draw good salaries and will have authority to "send for papers and persons."

What will this Commission do? When United States manufacturers remember that its original promoters hoped to use it as an instrument to assist labor, and were only prevented from securing it on account of the McNamara outrages, they will wait with considerable anxiety for the definition of the Commission's policy.

In discussing the field of the Commission, the *New York Journal of Commerce* makes the following pointed remarks:

"It would be possible for the Commission now appointed to do a good piece of scientific work if it would

review the labor situation of the United States and without fear or favor, and state exactly what is to be expected of the present hostile division between labor and capital. This would involve a rational consideration of the demands of labor and of the position of the employers with regard to them. It would call for some severe castigation of the vicious tactics employed by both sides, and would demand in the interests of the public that this sort of warfare should cease. It would discriminate sharply between the labor politicians who profess to represent the interests of the general mass of the employees, but who have no more connection with their real welfare than the lobbyists employed by the manufacturers. It would reprobate the illegitimate methods of capitalistic interests which have not scrupled to use their power for individual gain. A report designed to bring out the absolute facts in the recent warfare between labor and capital and to emphasize the demand of the public that the situation be improved, indicating the methods of such control and improvement, would be a real contribution to the literature of 'industrial relations.' Will the new Commission have the courage to work along this line, or will it follow the beaten paths of 'hearings' and collection of ill-digested information followed by a compromise report which reaches no conclusions and evades the main issues?"

Canada's Great Fire Loss.

CANADA'S fire loss in 1912 exceeded that of any other country, according to the statistics of the National Fire Protection Association, which are given in greater detail elsewhere in this issue. The per capita loss for the 302 cities of 20,000 population and over in the United States was $2.55. The per capita loss for the principal cities in Canada was $2.88; in England, 54 cents; in France, 84 cents; and in Germany, 20 cents.

Why should one Canadian burn as much property as five Englishmen, or three Frenchmen, or fourteen Germans? Is it because the Canadian is five times as careless about fire as the Englishman, three times as careless as the Frenchman, or fourteen times as careless as the German?

The Harvest.

SO long as the earth yields her stores generously, money stringencies cannot injure us greatly.

On our prairies the wheat fields, rich with promise, are falling before the reapers. Old Ontario has gathered in the greater part of an abundant harvest. From the Maritime Provinces come reports of good crops.

The great European war is over and from many quarters we hear that the financial stringency is lessening.

The output of goods, on the whole, has not been materially reduced, and, although some manufacturers have suffered, a general tone of optimism prevails. With good crops, large and increasing immigration, and plenty of Canadian ingenuity and industry, is it probable that there will be any serious set back to our manufacturing?

No Lowering of Our Tariff.

SOME United States newspapers and politicians are complaining that the Underwood Bill does not try to open foreign markets to the manufacturers of the United States. They contend, for example, that countervailing duties should have been fixed so as to force reductions in the Canadian Customs Tariff in favor of United States goods. According to their ideas, Canada should admit at lower duties the manufactures of the United States, which in turn would allow the free entry of Canadian raw material.

No better plan could be devised to close our factories or transfer them across the boundary, taking half our population with them.

We are masters of our own tariff. If the United States desires to revise theirs downwards towards the level of ours their action furnishes no reason why we should indulge in a sympathetic revision. The tariff which caused $500,000,000 of United States capital to be invested in Canadian industry is good enough for us.

The Ontario Highway Commission.

THE formation of a Highway Commission in Ontario is interesting to those who believe in good roads. Highway improvement is only another branch of the great transportation problem with which Canada is now struggling. The Commissioners will gather statistics from leading States of the Union, and will study conditions in every part of Ontario. A census of traffic will be taken by experts and tabulated to show the needs of each municipality. In an endeavor to lower the high cost of living by facilitating the movement of produce from farms to the cities, the main country roads will receive the first attention.

Freshmen Socialists.

A MEMBERSHIP roll, which included nearly 1,000 undergraduates and 700 graduates of United States universities and colleges, was reported at the last annual convention of the Intercollegiate Socialist Society. Fifty-nine branches of the Society are located in as many colleges and universities.

Abstract socialism appeals to the warm imagination of the student, whose life is a succession of enthusiasms. Few of them have applied its sanguine precepts to the great commercial and industrial problems of the present day. Yet probably many of these students are sons of manufacturers or other employers of labor. Some day, the sons will succeed to their father's opportunities and responsibilities. When that day comes, what will they do with their optimistic essays about the feasibility of dividing profits and property to the satisfaction of all while maintaining the old standards of industry and efficiency? How many of them will agree with Victor Berger, the Socialist member of the last Congress, when he said: "The safety and hope of the country will finally lie in one direction only—that of violent and bloody revolution."

We hope, for the welfare of the country, that all these young socialists are sons of manufacturers and that their fathers will lend them their shoes during a summer's vacation. When they struggle with the problems of industry from behind the employer's desk and scan the pay roll and the division of profits (if any) with an employer's eye, the mist of Socialism will lift from their brains as a fog disappears before wind and sun.

Regina Rate Case.

THE complaint of the Regina Board of Trade that the C.P.R. and C.N.R. have not filed their tariffs in accordance with the orders of the Railway Board, which directed that Regina be placed on the same footing as Winnipeg with respect to traffic originating at points east of Fort William and Port Arthur, has been dismissed by the Board.

The judgment, after complaining that the evidence shows lack of clearness in regard to the issue, says:

"Leave was reserved to the Regina Board of Trade to make such representations as it might desire on a fresh complaint based on unfair treatment or rates that Regina might still be subject to. Regina has not acted on this suggestion, and at the hearing in Ottawa last month it still insisted that the whole question was covered by existing judgments of the Board and that the Board's direction of July, 1912, was in error. The whole question, therefore, still depends upon what was covered by the Board's former orders."

This decision will be very disappointing to the Regina Board of Trade, which has worked faithfully under the firm conviction that the railways never complied with the original orders of the Board.

Supervise Ocean Freight Rates.

WE are glad to notice that a considerable number of leading newspapers are supporting INDUSTRIAL CANADA'S request for supervision of ocean freight rates. It is the firm belief of Canadian shippers that these rates have risen out of all proportion to the increased cost of water transportation.

Compensation in Washington.

THE twenty-one months' report of the insurance fund of the State of Washington continues to show reasonable insurance rates and a favorable balance in the fund. On the 1st of July there were 8,891 firms listed by the Insurance Commission. These had paid premiums in twenty-one months amounting to $2,105,798.10 to insure 162,970 workmen. The expense of doing business for the first eighteen months was 8.2 per cent.

A Company Benefit Society.

AN employees' mutual benefit society has just been organized by the Dunlop Tire and Rubber Goods Company for the purpose of rendering assistance to employees in cases of sickness, accident and death and of supplying them with medical attendance.

Men are entitled to $4 per week for the first ten weeks they are incapacitated by sickness or accident; women and all others earning at the rate of 12 cents per hour will get $2.50 per week for the same period. A clause provides that no benefits shall be paid in cases where sickness is the result of intoxication or immoral conduct. The sum of $30 will be paid to assist in defraying the funeral expenses of a deceased member.

The establishment of such societies as this improves the relations between employers and employees. Moreover, experts state that little difficulty will be encountered in adjusting a system of workmen's compensation to the conditions created by such societies.

Smokers in Factories.

IT is an open question whether the careless fool or the deliberate criminal does more damage by fire. Advantage seems to lie with the fool, because he is everywhere gladly bringing down destruction, while the fire bug must go about his deadly work stealthily, at weird hours and in awkward places.

Chief among the fools who carelessly cause fires is the smoker. His blazing match is cast down still alight. His cigarette end falls into piles of paper or shavings. The burning ashes of his trusty pipe descend gently into oil vats and barrels of gunpowder. If the fool destroyed only himself, the world could bear his actions philosophically, but he usually escapes while better men perish.

In England great wealth was accumulated by a man who was shrewd enough to locate small tobacco stores opposite factory entrances, but his fortune represented the loss of many fortunes by his brother manufacturers.

One would think that the smoker would hesitate to light his weed in the neighborhood of explosive liquids, but a recent report of the National Fire Protection Association of the United States shows that, out of 1,000 fires occurring in places where benzol, gasoline and naphtha were stored, 30 were caused by the smoker and 135 by matches, the smoker's friends.

Smoking should be absolutely prohibited in or about every Canadian factory, and employees breaking this rule should be dismissed. If the rule became national, manufacturers could inform each other of these dismissals and could refuse employment to persistent offenders. If it were enforced there would be fewer fires, better work would be done, and the smoker would enjoy his weed more keenly in the evening, after a day's self denial.

Harassing Insurance Companies.

THE experience of the State of Missouri shows how important is the influence of fire insurance upon the business credit of commercial concerns.

As previously explained in INDUSTRIAL CANADA, the insurance companies of Missouri ceased transacting business on account of drastic legislation, known as the Orr Anti-Trust Laws. The result of this policy was disastrous to business men, who found that their credit fell immediately because of the lack of protection from fire.

This is surely a striking illustration of the folly of harassing insurance companies with radical legislation, which does no one good and business much harm.

It is significant that no fewer than 1,500 bills regarding insurance, most of them mischievous or malicious, have been introduced into the various Legislatures of the United States.

A proclamation has just been issued by the Governor of Missouri, appointing a commission to study insurance laws, and we hope that constructive and broad-minded legislation will result. The mental attitude of the Governor is revealed in the following extract:

"This matter of fire-waste reduction and revision of insurance laws is not political. It does not in the least concern parties as such; it concerns us all as citizens. When it comes to the desirability of making the man who commits arson smart for his crime, the desirability of saving to the citizens of Missouri millions of dollars' worth of buildings, furniture and goods that now go up in smoke every year and are totally and irretrievably lost; when it comes to the question of laying the only sure foundation for reductions in fire insurance rates by a reduction of fire waste, there is no Democrat, Republican or Progressive. This is a reform which may justly demand the support of every citizen. I expect to put on the commission men of such character and standing that the results of their work will command general confidence and support."

Protecting Our Cotton Industry.

BY living on a scale which would starve an American or a European, and by constantly striving to perfect their manufacturing processes, the Japanese are demonstrating what progress they are making in the cotton industry. They are also showing that they can sell over the present high tariff wall of the United States.

Senator Smoot, speaking in the United States Senate, drew attention to the fact that, while the United States produces about two-thirds of the raw cotton used in the world, and should, consequently, be able to manufacture all the cotton needed in that country, $68,000,000 worth of cotton manufactures were imported in 1910, $48,953,231 in 1905, and $37,789,988 in 1900. And yet the average tariff of the United States in cotton manufactures is 42.75 per cent.

He claimed that Japan had taken away the cotton trade of Manchuria from the United States and would soon control the entire demand of China.

According to the reports of Consul-General Thomas Sammons, at Yokohama, Japan's imports of American cotton during 1912 amounted to 249,631,600 pounds, against 98,236,800 in 1911. In connection with this, it is interesting to note the growths in exports of Japanese cotton goods and yarns. In 1911 Japan's raw cotton imports were valued at $73,097,740, and its exports of cotton goods at $33,425,336, while in 1912 its imports of raw cotton amounted to $100,010,453, and its exports of cotton goods to $44,303,365.

Of the cotton tissues nearly $11,000,000 and of the yarns nearly $24,000,000 worth went to China, supplanting in a large measure former American and British goods. The remainder went to the Far East generally, including Australia and the Philippines. Of the cotton tissues Hawaii took $96,128 in 1912, as against $87,308 in 1911.

Exports of cotton fabrics and yarns from Japan during the last two years are given in the following table:

Articles.	1911.	1912.
Tissues	$9,800,407	$12,829,175
Towels	816,516	1,075,917
Underwear	2,782,195	3,665,261
Yarns	20,026,218	26,733,012
Totals	$33,425,336	$44,303,365

The Canadian tariff on gray and white cotton fabrics is only 25 per cent. and on colored cotton fabrics 32½ per cent. Japan is not one of our serious competitors, as yet, probably, because she is confining her efforts to taking away the Asiatic export trade of the United States. But during the year ending March 31st, 1913, we imported cotton manufactures worth $8,787,000 from Great Britain and $2,521,665 worth from the United States.

It is cold comfort to think that as Japan takes away the Chinese trade in cottons from the United States, that country will try to redeem its losses by selling more cottons in Canada, especially if our duty is reduced.

Those who advocate increasing the British Preference should consider the effect of such an increase on our cotton industry. A recent official report of the British Government states that 16 per cent. of the men engaged in the cotton industry in England earn less than $5 per week, working full time. Nearly 44 per cent. earn between $5 and $7.20. Thirteen per cent. of the women, working full time, earn less than $2.40 a week, while 39 per cent. earn between $2.40 and $3.60 a week. The average hours of labor in the English cotton industry are 55.5 a week.

Do we want these wages for the men and women who are engaged in the Canadian cotton industry?

Our Low Tariff.

TO those who advocate a downward revision of the Canadian tariff in sympathy with the present revision of the United States tariff, we submit the following list of articles, showing the rates of duty imposed by the United States tariff, the rates proposed in the Underwood Bill, the rates charged under the General Canadian tariff and the rates charged under the British Preference. On these articles, in nearly every case, the rates proposed in the Underwood Bill are substantially higher than the rates of our general tariff and much higher than the rates of our British Preference.

Articles.	U.S. Tariff.	Underwood Bill.	Canadian Tariff. General.	British Preference.
Wool Fabrics and Manufactures	90%	35%	35%	30%
Cotton Clothing	60%	35%	35%	25%
Silk Clothing	60%	50%	37½%	30%
Silk Fabrics	54½%	45%	30%	20%
Cutlery	64½%	30 to 55%	30%	20%
Jewelry	75%	60%	35%	22½%
Toilet Soap	50%	40%	32½%	22½%
Earthenware and China	60%	55%	30%	15%
Wrapping Paper	35%	25%	25%	15%
Ornamented Glass Bottles	60%	45%	32½%	20%
Umbrellas	50%	35%	35%	22½%

Our Wonderful Immigration.

EVERY immigrant arriving in Canada is an object of interest to a Canadian manufacturer. The immigrant should be fed, clothed and housed with "Made-in-Canada" goods. How to do this will tax ingenuity and enterprise. The manufacturer must study the tastes and traditions of each of the nations whose citizens swell the stream of immigration and he must provide goods to satisfy these tastes and traditions in great quantities.

During the year ending March 31st, 1913, no fewer than 402,430 immigrants were accepted by the Dominion Government. Of these, only 150,542 were of British birth; 108,082 being English, 2,019 Welsh, 30,735 Scotch, and 9,706 Irish; 139,009 came from the United States and 112,881 from other foreign countries.

That we are becoming a cosmopolitan country is suggested by the fact that, during the year, our immigrants included 21,875 Austro-Hungarians, 7,445 Chinese, 7,387 Hebrews, 16,601 Italians, 724 Japanese, 9,945 Poles, 18,623 Russians, 2,391 Finns, 211 negroes, 232 Syrians, and 128 Maltese. And Canadian manufacturers must try to please them all.

Out of the 402,430 immigrants of last year, 3,559 were held for inspection, but only 756 were rejected, which either proves that we are receiving a remarkably fine class or that our medical standards governing entrance are not exceptionally strict. Manufacturers, who pay heavy taxes, and many of whom contribute generously to philanthropic institutions, are concerned with the quality as well as the quantity of our immigration.

That the manufacturers in all the various provinces will get the benefit of the growth of the home market through immigration is evident from the distribution of the immigrants—19,806 located in the Maritime Provinces, 64,835 in Quebec, 122,798 in Ontario, 43,813 in Manitoba, 45,147 in Saskatchewan, 48,073 in Alberta, and 57,960 in British Columbia.

It is encouraging to note that a fair percentage of the immigrants made entry for homesteads. During the year there were 33,699 entries. And of these 4,452 were made by English, 836 by Scotch, 307 by Irish, 8,895 by United States, and 7,757 by Continental immigrants. Consequently, on the Government average of 2.5 persons for each entry, 19 per cent. of English, 16 per cent. of Scotch, 20 per cent. of Irish, 33 per cent. of United States, and 29 per cent. of Continental immigrants became homesteaders. Moreover, these figures do not take into account the thousands of immigrant farmers and farm laborers who settled on the land without homesteading. May their farm products reduce the cost of living.

Manufacturers who are short of skilled labor should derive comfort from the following classification of the immigrants, according to their occupations: Farmers and farm laborers, 114,572; general laborers, 122,498; mechanics, 72,243; clerks, traders, etc., 23,841; miners, 7,039; domestics, 23,872. Of the mechanics, 48,379 arrived *via* ocean ports and 23,864 came from the United States.

In the old days, the majority of immigrants who came to Canada quickly left to secure employment in the mills and factories of the United States. Now they stay in Canada to work in our mills and factories or to grow food for our mill and factory workers, while the mechanics and farmers of the United States are marching north.

Yet some Canadians want to demolish or reduce our Canadian customs tariff and send our factories, mechanics and immigrants to the United States.

Syndicalism Must Be Controlled.

Syndicalists do not represent trade unionism. They are those revolutionary, criminal and idle adherents to trade unionism who would pervert the entire body which they disgrace. At best, they form a small percentage of workers, the majority of whom are decent men, careful of life and property.

According to the Department of Labor, there are 160,120 members of trade unions in Canada, about 2 per cent. of the entire population.

Two people should not dominate a hundred, a fact which certain vote seeking politicians of this country sometimes overlook. It is doubtful if more than one unionist in fifty is a syndicalist; which means that there might be two syndicalists to every five thousand of our population. The question for the fifty trade unionists and the five thousand citizens resolves itself into this: Are they going to be dominated or terrorized by two syndicalists, whose professions are their severest condemnation?



EXECUTIVE COMMITTEE HAMILTON CENTENNIAL INDUSTRIAL EXHIBITION
Seated (left to right) A. H. Tallman, Stanley Mills, Vice Chairman; H. J. Waddie, Chairman; D. B. Wood
Standing (left to right) J. Mercer, Superintendent; J. B. Gordon, S. McPhie

THE HAMILTON CENTENNIAL EXHIBITION

THE thousands of people who visited the Centennial Industrial Exhibition in Hamilton, from August 11 to August 16, held in honor of the hundredth birthday of the city, were impressed and delighted with the exhibits. Not only were the goods displayed "Made in Canada," but they were also "Made in Hamilton," by Hamilton people, in Hamilton factories, with Hamilton brains and money.

The Exhibition was a great and deserved success, viewed from every point of view. It attracted huge crowds, gave the public a clear conception of the manufacturing possibilities of the city and benefited the individual exhibitors.

Growth of Manufacturing.

It also indicated the industrial progress which is being made by the city. In 1910, Hamilton stood third in output among the manufacturing cities of Canada. From 1890 to 1900, the manufactured output increased by 21 per cent; and from 1900 to 1910, by 221 per cent. That is, during the latter decade, the output of Hamilton factories increased by about 22 per cent. annually. Continuing at this rate until the present the manufactured output should be about two-thirds greater than the output of 1910, which would make it $91,876,576. We would hazard a guess that Hamilton, in 1913, will manufacture goods worth $100,000,000.

Great credit is due to the manufacturers of Hamilton for this splendid exhibition, and especially the following gentlemen who composed the committee: Messrs. H. J. Waddie, Chairman; J. S. Gordon, S. McPhie, Stanley Mills, C. H. O. Pooke, A. H. Tallman and D. B. Wood.

Over 60,000 people paid for admission, in addition to 3,000 guests.

The charge for booths was estimated to pay for the actual cost of their erection and running expenses, and with a ten-cent admission fee a surplus of over $6,000 was shown.

The object of the Exposition was to demonstrate the extent of the city's manufacturing interests to the citizens and visitors, and was for educational purposes primarily. To the surprise of many a large amount of business was done, and everyone was pleased with the result.

The List of Exhibitors.

The complete list of those who exhibited follows:

H. L. Bastien.
R. L. Soper.
McClarens, Ltd.
McNab & Langley.
Royal Distillery.
Mercury Mills.
Thornton & Douglas.
Hamilton Cotton Co.
Fuel Economiser.
Wagstaffe's Ltd.
Imperial Coco & Spice Co.
National Drug Co.
H. O. Company.
Tucketts Ltd.
Adamite Wheel Co.
Wm. Peace & Co.
Mummer Dowswell Co.
Automatic Weatherstrip Co.
Meakins & Co.
Walter Woods & Co.
J. Hore & Son.
Newbiggin Co.
Alith Mfg. Co.
Tucketts Ltd.
Domestic Specialty.
A. C. Turnbull.
Duncan & Co.
Ontario Engraving Co.
Hamilton Stamp & Stencil.
Canada Wire & Iron Goods.
H. Barnard & Co.
Union Drawn Steel Co.
Canada Crushed Stone.
Bertram & Son.
Pratt & Whitney.
Grafton & Co.
B. Greening Wire Co.
Laidlaw Bale Tie Co.
Vici Radiator Co.
Hamilton Stove & Heater.
D. Moore & Co.
Grasselli Chemical Co.
Canadian Shovel & Tool Co.
Ideal Mfg. Co.
E. T. Wright & Co.
Berlin Machine Works.
Canadian Westinghouse.
Chadwick Brass Co.
Canadian Tungsten Co.
Standard Underground Cable.

(*Continued on page* 188.)

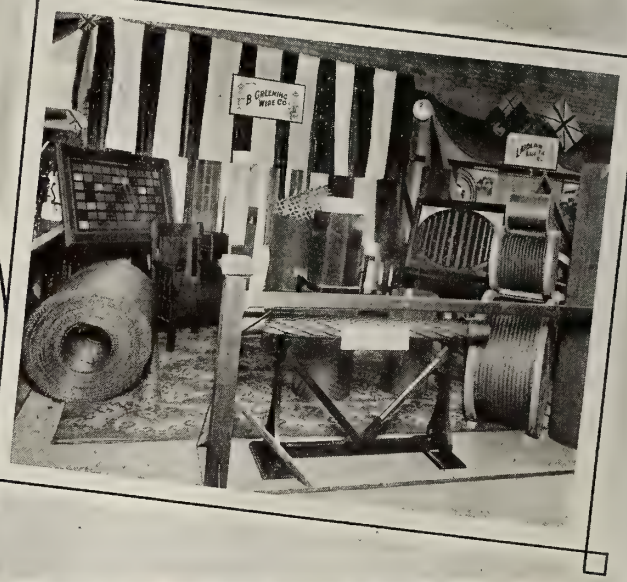


Exhibits at the Hamilton Centennial Industrial Exposition





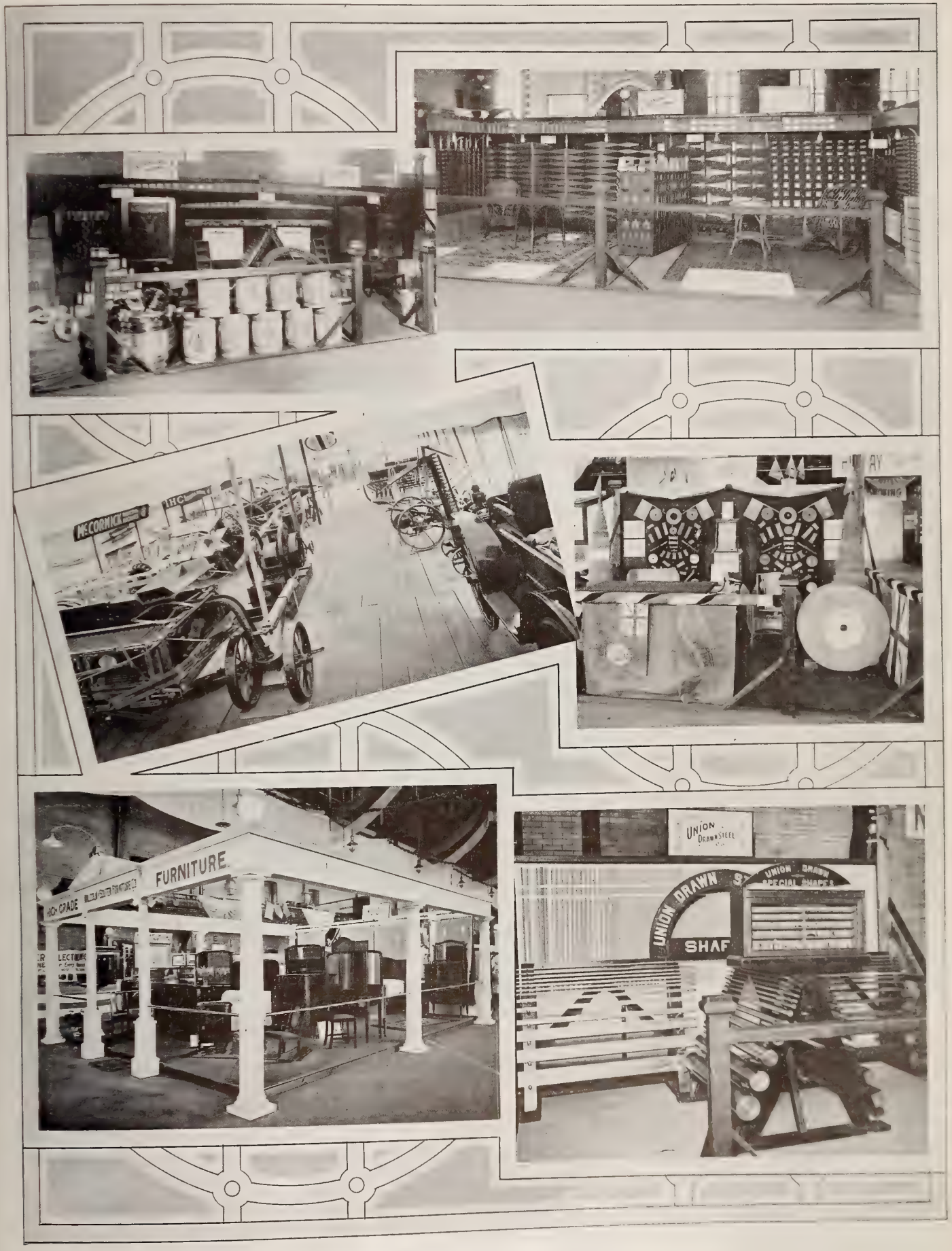








A Few Examples of the Magnificent Exhibits at



the Hamilton Centennial Industrial Exposition.

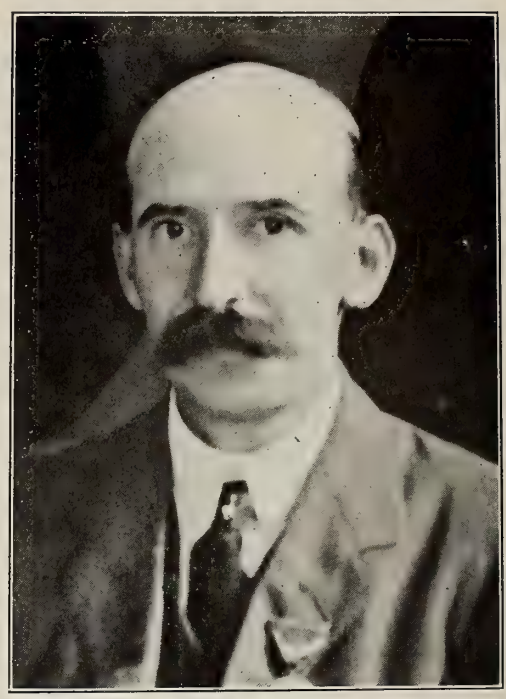
List of Exhibitors—Continued.

Dominion Canners.	Canadian Westinghouse.
Hilda Cigar Co.	Steel Co. of Canada.
D. Morton & Son.	Bowes Jamieson Co.
Baird & Co.	Hamilton Engine Packing Co.
Wagstaffes.	Dominion Belting Co.
Upton & Co.	Tallmen Brass Co.
Canada Wood Polish Co.	Malcolm Souter.
Young, Winfield.	Max Stolpi.
Fowlers Canadian Co.	Prack & Perrine.
Robt. Ralston.	Smart-Turner.
Wood Milling Co.	Canada Machinery Corporat'n.
Parsons & Parsons.	Canadian Hart Wheels.
Can. Cottons Ltd.	Meriden Britannia Co.
Imperial Cotton.	Hamilton Sewer Pipe.
MacPherson & Co.	Vicor Saw.
G. F. Glassco.	Atkins & Co.
Coppley, Noyes & Randalls.	Canadian Drawn Steel.
Can. Knitting Co.	Canada Steel Goods.
Moodie & Son.	Beveridge.
F. F. Dalley.	Taylor Mfg. Co.
Egg-O Baking Powder Co.	Bird & Son.
Upton & Co.	C. N. R.
Canada Preserving Co.	Tegelaar.
Canadian Wood Polish Co.	Membery.
Mrs. J. Eske, Filigree Work.	Chipman Holton Knitting Co.
McNab & Langley, Furs.	Zimmerman Mfg. Co.
Hamilton Pressed Brick Co.	Leaks & Potts.
Brown & Boggs.	Buntin & Gillies.
E. T. Wright & Co.	Bell Thread Co.
St. John's Ambulance.	Baynes Carriage Co.

AN ENGLISH VIEW OF OCEAN RATES.

Commercial Intelligence, one of the leading export journals of Great Britain, makes the following statements in regard to Canadian complaints on the recent increases in ocean freight rates:

"We noted lately a resolution which has been widely supported by business houses in Canada, urging the appointment of a Commission to consider measures for the prevention of exorbitant increases in freight rates to the Dominion. The Canadian Government appears to be in no doubt that the policy of the shipping companies is unreasonable—indeed, their spokesman lately admitted so in Parliament—and in response to the persistency of those affected have now decided to send a representative to this country to discuss with the Imperial Government the advisability of assuming control over the shipping combine's charges. This and the drastic action by the South African Government clearly shows how inadequate and unsatisfactory was the enquiry made by the Royal Commission on Shipping Rings, whose impotent conclusions have resulted in averting the attention of our Government from the question altogether. The agitation against the rings throughout the Dominion, however, does not appear to have been altogether lost on the autorities here, as witness the Postmaster-General's sympathetic attitude in the case of South Africa, and the Empire Trade Commission has brought back from Australia and New Zealand ample evidence that there is a case for interference with the shipping companies. In all the circumstances, we are not unhopeful that united action will yet be taken to preserve British trade with the Dominions from the untoward effects of rates which are not only unreasonable, but differentiate against this country in favor of foreign competition."



Mr. H. J. Waddie

A SUCCESSFUL SCOTCH CANADIAN.

The new Chairman of the Hamilton Branch has had wide Experience in Manufacturing.

The recent selection of Mr. H. J. Waddie, President and Manager of the Canadian Drawn Steel Company, Limited, to the chairmanship of the Hamilton Branch of the C. M. A. draws attention to his varied and valuable experience in the steel industries of Scotland and Canada.

Mr. Waddie was born in Edinburgh, Scotland, and received his elementary education in the Royal High School of that city, finishing at University College, Dundee. He began his career as apprentice in Hawthorns, Limited, engineers and shipbuilders, Leith, Scotland, and five years later became assistant manager in the Dennystown Forge, Dumbarton. From this position he graduated to the managership of the Yarrow Forge and Engineering Company, Yarrow-on-Tyne. He left this concern to become assistant managing director of the Perfecto Tube Company, Birmingham, from which he rose to the general managership of the Mannesman Tube Company, Swansea, South Wales.

Mr. Waddie was induced to come to Canada by F. H. Clergue, as manager of the Algoma Tube Company, a thirty-million-dollar project which did not materialize. Undaunted by this reverse, Mr. Waddie went to Hamilton and organized the Canadian Drawn Steel Co., Ltd., of which he has been the successful president and manager since its inception.

In the affairs of the Association Mr. Waddie has always taken an active interest. He has given valuable service on various committees, particularly on the INDUSTRIAL CANADA Committee, of which he is vice-chairman.

His most recent achievement was the success with which he acted as chairman of the Hamilton Centennial Industrial Exposition.

Over $1,000,000 has been spent by the Saskatchewan Highways Commission, with headquarters at Regina, on improving the roads throughout the province since the opening of the season.

CANADA LEADS THE WORLD IN FIRE LOSS

We burn the most property. United States a close second, with the countries of Europe far behind. What is the reason? Are we criminal, or merely careless?

(The following statistics are supplied by the National Fire Protection Association)

DURING 1912, the per capita loss by fire for the 302 cities of 20,000 population and over in the United States was $2.55. This was seven cents less than in 1911, but still sixteen cents greater than in 1910. The per capita loss for the whole country was estimated at $2.16. The Dominion of Canada is now laboring under a greater fire loss than any other country from which records are available. The per capita loss for the principal Canadian cities is $2.88. The principal cities of England France, and Germany have an average per capita loss of fifty-four cents, eighty-four cents and twenty cents respectively.

In a group of twenty-eight cities of the country having a population of 200,000 or over, Providence stood the highest with a per capita loss of $4.80; Kansas City came next with a per capita loss of $4.77; and Boston was third with a per capita loss of $3.61. In 1911 Providence stood next to the lowest. The average per capita loss for this group of twenty-eight cities was $2.37, which was five cents less than the average for 1911, and the per capita loss in thirteen of these cities was greater than the average. The city in this group having the smallest per capita loss was St. Paul, which was thirty-seven cents. Rochester came next with $1.11, and New Orleans had a per capita loss of $1.29. The ten cities having a population over 200,000 and less than 300,000 had a per capita loss of $2.82.

In a group of eighteen cities having a population of 300,000 or over, the average per capita loss was $2.30, which was nine cents under that of 1911. In this group eight cities have a greater per capita loss than the average for the group. Boston had the largest per capita loss; Minneapolis came next with a per capita loss of $3.57; and Newark was third with a per capita loss of $2.92. New Orleans holds minimum place here, with Baltimore next having a per capita loss of $1.59 and Washington third from the lowest with a per capita loss of $2.92. The seven cities having a population over 300,000 and less than 400,000 had a per capita loss of $2.33.

Boston the Leader.

In a group of eleven cities having a population of 400,000 or over, Boston had the largest per capita loss; Detroit came next with a per capita loss of $2.69; and Chicago was third with a loss of $2.59 per capita. Baltimore again made the best showing in this group, and Buffalo came next with a per capita loss of $1.89. Philadelphia was again third from the lowest with a per capita of $1.93, which was forty-six cents greater than last year. The average per capita loss for this group is $2.29, which is two cents higher than last year. Five of these cities had a per capita loss greater than the average for the group.

The smallest per capita loss reported in any city with a population of 20,000 or over was in Savannah, Ga., a city of 67,000, which had a per capita loss of eighteen cents. Oshkosh, Wis., a city of 34,000, came next, with a loss of twenty-two cents; and Reading, Pa., with a population of 100,000, had a per capita loss of twenty-three cents. The cities which enjoyed the lowest per capita loss in 1911 had a loss of fifty-five cents, $1.73, and twenty-five cents, respectively, this year.

In comparison with this appalling destruction, the following brief summaries of fires in foreign cities seem almost insignificant.

Low Continental Losses.

England. Only one city among the thirteen largest cities had a per capita loss over one dollar. This was Leeds, a city of 445,550 people, with a per capita loss of $1.23. York, a city of 82,297, had a per capita loss of nine cents; and Lancaster, a city of 41,414, had a loss of eleven cents per capita. The average per capita loss of these cities was fifty-four cents, which was one cent more than last year. None of these cities had a fire for less than each 1,000 of population, and the average was one fire for every 1,370 people. The average loss per fire was $731. In London, a city of 4,522,961 people, the fire loss was $2,137,220, or a per capita loss of forty-seven cents. There was one alarm for each 1,333 of population. The average loss per fire was $631.

Ireland. Belfast, with a population of 390,000, had a per capita loss of sixty-eight cents; and Dublin, with a population of 309,802, had a per capita loss of forty-three cents. The average per capita loss of these cities was fifty-seven cents, one cent less than last year. The average number of fire alarms was one alarm for every 1,852 of population. The average loss per fire was $1,061.

Scotland. Aberdeen, with a population of 163,891, had a per capita loss of sixty-seven cents; and Edinburgh, with a population of 321,200, had a per capita loss of forty cents. The average per capita loss of these cities was forty-nine cents. The average number of fire alarms was one alarm for every 847 of population. The average loss per fire was $414.

France. The average per capita loss of the six principal cities was eighty-four cents. The average number of fire alarms was one for every 952 of population. The average loss per fire among these cities was $794. In Paris, a city of 2,846,986 population, the aggregate fire loss was $1,412,628, which was a per capita loss of fifty cents There was one alarm for every 787 of population, and the average loss per fire was $389.

Austria. The average per capita loss of the four principal cities was thirty cents. The average number of fire alarms was one for every 741 of population. The average loss per fire among these cities was $225. In Vienna, a city of 2,064,538, the aggregate fire loss was $378,800, which was a per capita loss of eighteen cents. There was one alarm for every 662 of population, and the average loss per fire was $121.

Germany. Among the nine largest cities (except Berlin) Aachen, a city of 160,000 people, had the maximum per capita loss of fifty-seven cents. Dresden, a city of 561,100, had the minimum per capita loss of three cents. The average per capita loss for all these cities was twenty cents. The greatest number of fire alarms occurred in Hamburg, a city of 990,000, where an alarm occurred for every 599 of population. The least number occurred in Stuttgart, a city of 300,649, where there was noe alarm for each 1,961 of population. The average for all cities reporting was one alarm for every 855 of population. The average loss per fire was $175.

LIGHTING FACTORIES BY DAY AND NIGHT

The great changes in factory construction bring problems of industrial lighting. Output of a factory should not suffer through poor illumination

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UP to within a few years it was common to locate manufacturing plants in large cities, and often in very congested sections. This is not conducive to the securing of good daylight illumination, because even though the plant is erected in a light and open space, there is usually but little assurance that the surrounding property will remain unoccupied. In fact, the normal growth of the plant itself may make it necessary to crowd many buildings into a small space, unless a large land area is available for expansion. Hence, even when good daylight is available at the outset, the plant may be badly off for it within a few years, so that it will be necessary to run a considerable number of artificial lights during the day.

Owing to the high value of land in our large cities, shops and factories that are located there are usually constructed several stories in height; and this often means that a considerable part of the floor area receives but little daylight. In fact, when other structures are near by, it is common to find that only the extreme front and rear parts of the building are adequately provided with daylight illumination.



Avoiding Loss of Light from Belting

When it is necessary to rely upon illumination from the sides, and particularly when the building is more than one story in height, it is exceedingly important to provide a large window area. To get the full advantage of the window surface, the height of the stories should bear a proper relation to the breadth of the building, so that light can reach the middle of the floor space without having to pass through the shop in a direction too nearly horizontal.

Lighting Interiors.

The interior of factories and shops should be finished in light colors, to prevent the wasteful absorption of light that occurs when dark colors are used, or when dirt and oil are allowed to accumulate upon the walls and other surfaces. The walls and roof should be kept reasonably clean, and a fresh coat of paint or of whitewash should be applied whenever they become grimy and discolored. It is very common to see the woodwork and the brick walls of a plant painted a light color, while the trusses and other structural steel parts are black, or nearly so. There appears to be no reason for painting exposed steel trusses and columns black in this way, except that it is the customary thing. We see no reason why they should not be kept white, or light colored, with as much care as the roof and walls.

Manufacturers often overlook the fact that it is important to keep the windows of their shops and factories reasonably clean, so that light can enter them freely. It is very common indeed for windows to be allowed to collect dirt until they become translucent instead of transparent, and when they are in this condition they intercept a large proportion of the light. They are often neglected, year after year; and yet it pays well to keep them washed.

When a large amount of glass surface is used in the windows, and the admission of direct sunlight to the work is objectionable, it is well to glaze the windows with ribbed glass, which transmits the light freely, but diffuses it so that it is nowhere objectionably strong.

Prism glass can be used with advantage in many cases, particularly when the factory is surrounded by other buildings so that an almost vertical light shines down past its windows from the sky overhead, while the windows themselves are shaded in large measure by the adjoining buildings. It consists of sheets of glass that are provided with small horizontal ridges, prismatic in shape, and arranged so that when light strikes them from a nearly vertical direction it is deflected and made to enter the shop almost horizontally.

The main objection to large window surfaces in a factory or shop is the difficulty of heating the working space during the winter months in our northern latitudes. This objection is certainly worth consideration, but more is usually gained by providing the large lighting area than is lost through the increased difficulty of heating. In shops where small windows make it necessary to run artificial lights for a considerable fraction of the time, the cost of the auxiliary illumination so required offsets, to a certain extent, the lessened cost of heating during the cold months.

The last few years have seen a marked change in shop and factory building, in location as well as in construction. The boards of trade in the smaller cities and towns have for some time advertised the varied advantages of their respective localities as points to move industries to, or to start new ones in. Special inducements of a tangible and substantial kind are frequently offered, such as exemption from taxation for a term of years; and many of the manufacturers who have been free to do so have taken advantage of these inducements and located in the places offering them.

With this change in location there has come a corresponding change in factory construction. As a general rule land is plentiful and cheap in the smaller places, so that one-story buildings are prevalent there, and the problem of daylight illumination becames reduced to its simplest terms.

Monitor roofs are often used with advantage upon one-story buildings, as they afford a convenient means of admitting light to the interior of extended spaces that would other-

wise be too dark to be available for manufacturing purposes, without artificial illumination. The characteristic feature of the monitor roof is an elevated structure with glass sides, that rises, cupola-like, above the main roof, and runs along the middle of the building in such a way that the light that enters through the sides of the structure illuminates the central portions of the room below.

The so-called "saw-tooth" roof is another excellent device for securing good day-light illumination in one-story shops. In this construction, which is comparatively modern, the roof of the building is traversed by a number of ridges, roughly saw-toothed in shape, which are steeper on one side than on the other. They are glazed only on the steep side, and on the other they are covered with some substantial roofing materials, such as slate, or tar and gravel. The saw-tooth ridges should run east and west, or nearly so, and the glazed side should face toward the north, so that the direct rays of the sun may not enter it. There is quite a marked difference of opinion among engineers as to the best slope to give the glazed sides of the saw-teeth. According to some authorities, they should make with the horizontal an angle of not less than 71° in the most northern parts of the country, nor less than 77° in the most southern parts; but others consider that inclinations as small as 60° to the horizontal can be used satisfactorily in any part of the country. It is pretty well agreed, however, that the angle at the vertex of the saw-tooth should be 90°.

When conditions will permit, the building upon which the saw-tooth construction is to be used is preferably oriented so that its length extends either north and south or east and west. The saw-teeth will then run either lengthwise of the building or crosswise thereto. There is no objection, however, to running them diagonally across the roof, except that in such cases the construction work is more complicated and costly.

Saw-tooth roofs often give trouble from condensation on the glass, and also from direct leakage.

The condensation on the inner surface of the glass is sometimes exceedingly objectionable, particularly in textile mills and other plants where the dripping of water would seriously damage the product. To guard against this, the glass in the sashes is frequently made double, with an air space between. This reduces the condensation very materially, but it is not always entirely satisfactory and effective. Most roof designers prefer to have the glass single, and to run conductors or gutters along the lower edges of the windows on the inside, to receive the condensed water and lead it away into suitable drain pipes. The saw-tooth ridges, in any case, should be properly ventilated at their highest points. Condensation is materially reduced by making the sashes of wood instead of metal. Metal frames are such good conductors of heat that they greatly increase the condensation when the weather is markedly cold.



Illustrating the Monitor Roof

Dealing with Leakage.

Direct leakage is likely to occur unless the roof is carefully built, and it is most troublesome when the successive saw-tooth ridges follow one another with little or no horizontal space between them. Leakage can best be avoided by leaving a flat place in the roof at such points at least two feet wide, and attending carefully to every joint and angle. The glazing should receive special attention, because in winter the spaces between the ridges are likely to become more or less blocked with ice and snow, so that when a thaw comes the water will back up and run over into the building if there is any leaky place that it can reach. To guard against trouble of this kind the roof should be drained as thoroughly as possible, and it is best to run the drain pipes inside of the building, so that they will always be free. Pipes that run down the outside of the building will often remain open at the top, where they are close to the warm roof, and freeze up solid at some lower point, so as to become entirely useless.

It is important to locate each machine in the shop, so far as this may be practicable, in such a way that the light from the windows does not shine directly into the face of the operator.

Light from windows and roofs is often seriously obstructed by belts, in shops where these are numerous. The use of individual electric motors, one to each of the machines that are to be driven, keeps this source of trouble down to a minimum, but a great deal can be accomplished, even when electric motors are not used.

Good daylight illumination tends to improve shop conditions in many ways. Sanitary conditions, for example, are always better where the light is good. Tuberculosis germs, that can live for a long time in dark places, are killed in a few hours by direct sunlight, and they perish in three or four days in rooms that are well lighted by strong, diffused daylight. Good daylight also tends to maintain good spirits among the employees, and to make them more cheerful and more efficient, and thus, indirectly, tends to reduce the number of accidents that occur.



A Shop with Large Window Area

Artificial Lighting.

Daylight illumination is of prime importance, and should therefore receive very special attention. The most serious and difficult problems in industrial illumination are those that arise in connection with artificial lighting.

Artificial light is required in our factories and shops, on an average, for about fifteen per cent. of the

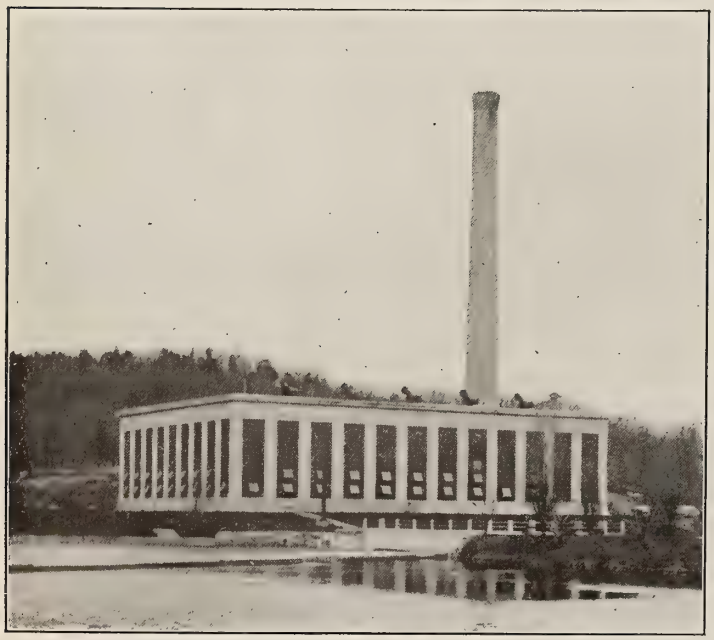
total working hours, overtime not included; and this means that fifteen per cent. or more of the total output must be produced under artificial light. In many plants, too, night work is quite common, either continuously or for considerable periods; and in these cases the artificial lighting problem must of course receive particularly careful consideration.

Artificial illumination should always be of such a character that the output of the plant will not suffer in quantity or in quality, by reason of its use. It should also permit the machinery to be operated without increasing the risk of breakage or other damage, and it should enable the employees to do their work without danger of personal injury.

Until recent years, factories and shops were pretty generally lighted by gas-burners of the ordinary fish-tail type; but gas has now been displaced in large measure by electric lights of one form or another, although excellent gas-burners of greatly improved types have also been developed for shop purposes, and in some special localities incandescent-mantle gas-lamps are employed for industrial lighting almost to the exclusion of electricity. Generally speaking, however, the electric light is much more common than gas, at the present time, and we shall therefore confine our attention to it in this article.

Any Power Desired.

From the first invention of the electric light down to within a very few years, lamps of medium brilliance were not available. Arc lamps could be had, each giving a light equal to several hundred candles, and for quite a long time incandescent carbon-filament lamps up to 30 or even 50 candle-power have also been available; but the intermediate gap in the scale of brilliance was practically unoccupied until lamps with metallic filaments, particularly the tungsten-filament lamp and the mercury-vapor lamp came into use. At the present day, however, we can easily procure lights of almost any brilliance that we wish. This fact greatly facilitates the solution of the lighting problem in many of the special cases that arise, because it enables the illuminating engineer to approximately determine the size, number, and brilliance of the lamps that are to be used, so as to realize ideal illuminating conditions without being hampered in any way by the necessity that formerly existed, of merely choosing between two kinds of lamps of widely different illuminating power. In other words, he is no longer limited to a choice between a powerful lamp and a weak one, with nothing between; and the latitude of treatment that is gained by this change has tended greatly to the improvement of industrial lighting.



A Well-Lighted Power House

Uniformity Gives Best Results.

Diffuse and fairly uniform illumination is best, under ordinary conditions, but this statement is subject to modification in certain special cases. For example, although a uniform general illumination is usually advisable when the shop is filled with many small machines, yet when the machines are relatively few in number, and are distributed through the shop at rather wide intervals, it is often cheaper and equally effective to provide a diffuse illumination ample for moving about the room safely, and to supplement this by local lights associated with the respective machines, and properly shaded. Supplementary lights are also needed, in many cases, when the machines produce work of unusual fineness.

Although it is highly desirable that the light should be diffuse and uniform, it is nevertheless possible to have it too uniform, so that the eye will have difficulty in accurately judging of the relative positions of points in space. This becomes apparent when an attempt is made to manipulate a sharp-pointed tool or other implement in an absolutely uniform light, without shadows, so as to bring its point to a definite position under certain carefully selected conditions. The difficulty is no doubt due to the fact that in judging of the position of an object in space, we are ordinarily assisted by the shadow cast by the object, as well as by the convergence and focal adjustment of our eyes; while when the light is so uniform that there is no shadow whatever in any direction, then the eye must judge distances and positions by its own adjustments alone, without help from shadows. Difficulties of this kind are known to us mainly through laboratory experiments, however, and there is very little probability of light being too uniform in actual industrial establishments. In fact, we do not recall a single case, in practice, in which the uniformity of the lighting has been pronounced enough to interfere with the safety of the employees, or with the efficiency of their work.

The advantage of diffused light, as compared with light that is strong in some places and weak in others, is best appreciated by visiting a shop in which arc lights, spaced at wide intervals, are used without proper shades or reflectors. The contrasts that occur in such cases are strong and sharp, and markedly confusing to the eye. These violent contrasts tend to obscure sources of danger that lie in the shadows, not only about the machinery but also in passageways that are shaded here and there by posts or by machines, or in other ways.

Care of the Eyes.

After exposure to a strong light, the eye becomes temporarily unable to perform its normal functions with light of lesser intensity. Hence when the eye is turned from a region where the light is exceedingly strong toward one where it is very weak, the retina may be so greatly fatigued that it can take no note, for some time, of anything that is in the darker region. A man, working in a shop in which there are great contrasts of light and shade from the use of improper illuminating apparatus, may become partially blinded in this way for the time being, even though he may not be aware of the fact; and while he is in the semi-blind condition, he is particularly likely to become injured. The regions between which the contrast exists may be large, and be separated from each other by considerable spaces, or they may be small and lie close together on the same machine, or be situated side by side in some other manner.

In high-studded rooms it is usually best to employ a relatively small number of high power lamps; while in low-studded rooms the conditions should be reversed, and a considerable number of low-power lamps should be employed. For economical reasons, however, it is advisable to use the largest units that are consistent with a good distribution of the light and a proper shading of the eyes of the employees, because if this is done a saving is effected, both in wiring and in maintenance. The average maintenance cost of five 100-watt tungsten-filament lamps, for example, is 20 to 25 per cent. greater than the corresponding cost of a single 500-watt lamp of the same type.

The intensity of light, *at the illuminated object itself* (and this, it will be noted, is a very different thing from the brilliance of the lamps), should be carefully considered in all lighting installations, and it should be adapted to the nature of the work that is to be done. This point will be specially considered in a later article, and here we shall merely point out that the lamps that are used for the local lighting of individual machines are often too strong. An unprotected 16-candle-power, or 32-candle-power lamp is often employed in such places, when a properly shaded one of 8-candle-power would be more effective, and far better from every point of view.

THE USE BY THE MANUFACTURER OF HIS OWN CAPITAL AND OF BANK LOANS

By H. M. P. ECKARDT

IN every period of monetary stringency a number of the manufacturers find the question of bank loans troublesome or irritating. Rates of interest payable thereon have a tendency to rise; and the cost of manufacture may thus be sensibly increased. Again, the banker in such a period is apt to be more exacting as regards the security backing his advances; he is more particular about discounting weak paper, and he may press for reduction of loans when his customer is making arrangements to expand his business. Then, as a rule, the manufacturer attaches a greater value to the capital which he himself owns; the bank loans do not appear quite so valuable or desirable in his eyes.

Perhaps it can be said that friction is most likely to occur in those cases wherein the manufacturer has been tempted to apply the proceeds of bank loans towards the acquisition of equipment or of an enlarged plant. When such a disposition has been made of the proceeds, the loan granted by the bank is likely to be characterized by permanency. When money is easy and the various banking institutions are competing hotly for discount accounts, there may be no vigorous objection raised against the long-standing loan. But just as soon as conditions change, it is probable that the head office of the bank will begin to press the question of reduction of liabilities. This change of front may occur at an awkward season for the borrower. He may have to re-shape entirely or reconstruct his plans; and such reconstruction may prove very costly.

A Time for Thought.

That being the case, the manufacturer usually finds it advisable to give timely attention to the question of his relations with bankers. Up to what point should reliance be placed on his own capital; and to what extent is it safe and profitable to depend on bank loans?

It should be said at the outset that the chief reason why bank loans represented by plant and equipment often give trouble is that they are not founded on sound principles. One of the cardinal rules governing the banking business is that all loans or advances shall be represented by assets realizable in a short time. Loans based on salable merchandize or securities, collectible accounts, notes, and bills, conform to this banking rule. Loans based on immovable property, such as land and buildings, and loans on machinery, when in use, as factory equipment, are obviously in contravention of the rule. This principle or rule underlies the whole of the Canadian Bank Act, and the experience of the past shows that it usually pays both the bankers and their borrowers to keep it respectfully in mind.

Perhaps it would conduce to pleasant and profitable relations between the manufacturer and his banker if it were remembered on all occasions that the bank is, so to speak, a little off its natural grounds when making direct loans to a customer. In discounting good trade bills for solvent customers the bank is in its natural element; and when the manufacturer's liability account consists entirely of good trade bills which are paid in due course, there is scarcely any occasion for friction or disagreement. When, however, the bank is requested to make direct loans the openings for differences of opinion or disagreements tend to increase. The question of security, of disposition of the proceeds, and of the term or currency of loan all have to be settled.

In the practice of manufacturers as regards the use of bank credits, there are wide variations. In some cases the manufacturer depends so largely on his own capital that he does not even require to discount his bills receivable. They are passed through the bank on collection; and trade bills are discounted only when some exceptionally large payments exhaust temporarily the funds carried in current account. This condition of affairs may also exist in the case of an industrial corporation which has supplied itself with an ample amount of working capital through the issue of bonds or preferred stock.

In other cases the manufacturer will perhaps be able to finance himself altogether through discounting his receivables. This usually means that he will have a reserve of undiscounted bills on hand during a part of the year, and that all available paper will be under discount in the season of heaviest demand for funds. This class of manufacturers, again, will de divided into two sections. In the first section would be the parties who financed themselves solely through discounting trade bills and who had practically no liabilities apart from the line at the bank. The second section would be comprised of parties who perhaps acquired their raw materials on credit, and discounted trade bills to meet the weekly wage sheet and to retire maturing bills drawn by the outside creditors. Other things being equal, a less investment of their own capital would be required on the part of manufacturers comprised in the second section.

Next we come to the manufacturers who depend on direct loans made by their bankers. It should be said, here, that when the bank makes a direct loan on the manufacturer's bills receivable lodged as collateral, the transaction is essentially the same as if the receivables were discounted. The bank may advance only a certain percentage on the face value of bills hypothecated. In effect it is discounting trade paper up to that percentage.

So far as direct loans, apart from loans on bills receivable lodged as collateral, are concerned, they are of various classes. Thus it is of common occurrence for the manufacturer to secure loans from his bank to pay cash for raw material—said raw material being a staple article with broad and steady market. This loan may perhaps be secured by endorsement of individual partners or of directors; it may also be secured by pledge of the raw material Afterwards further loans may be granted by the bank for the purpose of paying wages and other expenses. Then, in the ordinary course, the loans are retired through discounting trade paper. In that case the manufacturer has no liabilities of consequence excepting that represented by his line at the bank.

Capital Investment.

The banking transactions so far considered are all perfectly legitimate. When granted to capable and trustworthy parties such credits should cause no great trouble to borrowers or lenders.

Now let us see what is implied as regards the capital investment of the borrowers. The manufacturer's banking transactions could not well proceed as here outlined unless he himself provided the capital represented by the mill or factory, the land on which it stands, and the machinery and equipment. That represents practically the minimum investment by which it is possible to carry on the bank account without risk of friction and trouble. Then it would be almost impossible to work the account through merely discounting trade bills, unless a further investment to represent working capital is made. When the manufacturer provides his building and its equipment with his own funds and when he has a reasonably ample supply of working capital he is thoroughly independent; and he can frame his policy to suit his circumstances. If he looks to the bank for only a moderate part of his working capital he may still retain his independence in large measure. But if he asks the bank for the greater part of his working capital and for funds to buy machinery and build extensions, he is placing himself largely at the mercy of circumstances. One might guess that the manufacturers who have been experiencing trouble with their bankers during the recent stringency are mostly in this condition.



This Loses Export Trade—"Exporter's Review"

And one arrives at the conclusion that in the long run it is advantageous for the manufacturer to provide his own capital up to the point of acquiring that building and equipment and a part at least of the working capital. When he does that he has the best chance to prosecute his industry successfully and independently. In the larger cities there are a number of manufacturers occupying leased premises. While they are in this position they are relieved from the necessity of providing expensive buildings of their own, and the requirement for capital investment is consequently less. But recent developments have shown that unless the rented premises occupied by them are large enough to give room for expansion, and unless they can also count upon having possession of the premises for a long term of years, it is usually advisable to be forehanded in providing funds which can be used to acquire buildings of their own.

Without a Home.

For the bankers state that every little while some manufacturing customer who has been in leased premises wakes up to find that the building has been sold over his head, or that he has entirely outgrown it, and he is compelled to go to the bank and ask for a large building loan. As previously remarked, a building loan, represented as it is by fixed or unmovable assets, contravenes the best banking principles. And the bank will agree to make such a loan, even to one of its best customers, only with great reluctance. When he is obliged to use his credit for that purpose the customer may be seriously cramping himself for working capital. But if the manufacturer, with this eventuality in mind, begins to prepare for it several years beforehand, he may be able to provide premises of his own, when it becomes necessary or advisable to do so, without unduly stretching his credit at the bank.

While it is the case that the banks expect their manufacturing customers to buy their machinery and equipment with their own funds, in actual practice it often happens that the manufacturer uses his bank credit for the purpose; and this can be done in a perfectly legitimate manner. Thus an order is given for some new machines. They arrive and are installed. After the test is made and the machines are finally accepted by the purchaser, the draft for same comes along, is accepted, comes due, and is charged up to the manufacturers' account at the bank. If he covers it through discounting trade papers, the matter is closed and the bank does not lend money for acquisition of equipment. If, on the other hand, the manufacturer takes up the machinery drafts through increasing his direct loans, the transaction may nevertheless be entirely free from objection from the bank's point of view, providing that the manufacturer's line of credit does not exceed the security held nor the amount authorized, and providing that the borrower's line is cleared off at the usual clearing up season for this industry.

It would, however, be open to objection, and perhaps it would eventually lead to trouble, if when the manufacturer's security or collateral was exhausted, and he was supposed to have cleaned up his direct loans, there remained an unpaid balance representing the purchase price of the new machinery. That would mean that the manufacturer instead of buying his new machinery out of current profits, was buying it by means of bank loans. His next season's credit would begin with the deficiency referred to, and if more machinery were bought next year and the buildings extended, it might devolve that the unpaid balance at the end of the season, after the collateral was exhausted, would have reached much larger proportions. In that case it would seem that the manufacturer was perhaps heading straight for a troublesome experience.

The G. T. P. contemplate building hotels at Jasper Park, B.C., Mount Robson, B.C., and Prince Rupert, B.C.

INDUSTRIAL BONDS AND SECURITY

The Analysis of Thirty Companies Shows that Assets are 3½ times Bond Issue

IN order to show the degree of security behind Canadian industrial bonds, the *Financial Post*, in a recent issue, analyzes the standing of thirty manufacturing companies.

"It has been maintained lately in some English papers that Canadian financiers have not shown sufficient care in maintaining the industrial bond at a very high level among Canadian securities," says the *Financial Post*. "It is argued that in some cases companies have come to depend entirely upon the bond market for their capital, with the inevitable result that bonds have been issued up to the very limit of the value of the property, and have as a consequence been poorly secured."

Explanation of the Table.

Under the head net assets in the following table there is given the assets of the companies at the end of their last fiscal years after deductions of all current liabilities have been made. In the third column is given the percentage ratio of this protection—namely, the percentage that the assets form of the bonds.

"From an examination of this table of thirty companies, chosen without any special regard for supposed careful financing," concludes the *Financial Post*, "it is evident that the net assets of these companies amount, on an average, to three and one-third times the bonds actually outstanding. This would seem to be a very favorable showing as it is entirely unlikely that the assets of any of these companies have been over-valued to this extent or in fact that these assets could depreciate in value sufficiently to affect seriously the security behind the bonds.

"However, earnings also as well as assets are of decided interest to the bond-holder, because in investing in high-class industrial bonds he may not allow any speculations regarding failure of dissolution to enter into his calculations. If he is convinced that the surplus earnings of the institution offer him a sufficient margin of safety to offset the ordinary dangers to which any industrial organization is liable, he is not likely to give much thought to his possible protection in the event of foreclosure. Under any circumstances the industrial bond-holder is only a little less interested in keeping the concern going than is the shareholder who can expect nothing from a sale of assets.

"From these figures it will be seen that the industrial bond brought out by responsible companies is usually well secured and deserves the popularity it has enjoyed at the hands of investors both in Canada and abroad."

Company.	Bonded Debt.	Assets..	% Assets of Bonds.	Interest Rate.	Rate Profits.
Textiles—					
Canadian Converters	$689,000	$2,419,270	351	6	11.3
Canadian Cottons	5,000,000	11,426,673	228	5	14.9
Dominion Textile	3,678,800	11,378,759	310	6	21.0
Montreal Cotton Co.	897,638	6,764,404	754	5	43.9
Penmans	2,000,000	6,172,706	308	5	19.3
Millers—					
Lake of Woods (1)	1,650,000	5,330,958	323	6	27.7
Ogilvie	1,750,000	6,822,332	389	6	29.7
Western Canada Flour	1,752,287	3,668,007	208	6	15.1
St. Lawrence Flour	300,000	2,038,006	678	6	20.7
Pulp and Paper—					
Laurentide	878,198	8,271,770	942	6	83.5
Price Bros.	5,110,000	13,934,274	272	5	9.0
Riordon	1,500,000	7,716,129	490	6	15.0
Toronto Paper	500,000	1,407,036	281	6	27.7
Steel, Etc.					
Canada Car & Foundry	8,333,306	17,235,793	207	6	18.5
Canadian Locomotive	1,500,000	5,166,148	344	6	20.0
Dominion Steel Corporation	23,514,549	73,377,042	312	5 & 6	15.7
Nova Scotia Steel	5,946,809	16,334,459	274	5	14.8
Steel Co. of Canada	8,000,000	27,529,732	344	6	17.4
Miscellaneous—					
Canada Bread	1,250,000	5,120,818	409	6	13.2
Canada Cement	6,256,996	31,240,028	500	6	22.3
Consolidated Rubber	3,079,600	7,926,496	256	6	17.2
Dunlop Tire	500,000	2,433,168	486	6	46.7
P. Lyall & Sons	1,250,000	4,420,234	353	6	17.3
National Brick	2,319,100	4,584,399	197	6	16.4
Sawyer-Massey	750,000	4,175,293	556	6	32.3
Sherwin-Williams	1,980,700	10,284,617	518	6	29.1
Ames, Holden, McCready	980,000	7,219,290	736	6	35.9
J. H. Ashdown	1,000,000	4,431,126	443	5	40.0
Harris Abattoir (3)	750,000	1,303,069	174	6	21.1
P. Burns & Co. (2)	2,500,000	5,455,879	218	6	18.0
Total	$94,716,953	$315,576,197	336	..	19.9

(1) Includes Keewatin. (2) Statement, 1911. (3) Average 11½ years. (4) Approx.



View of Halifax Harbor

HALIFAX AS AN INDUSTRIAL CITY

By E. A. SAUNDERS
Secretary Halifax Board of Trade

HALIFAX, founded in 1749 and incorporated in 1842, is the oldest British city in Canada; it is the largest city in the Maritime Provinces, the latest directory census giving the population as 51,632. It is the most important shipping point in Eastern Canada; has steamship connections with all parts of the world, and is the Atlantic winter terminus of the great Transatlantic steamships, some eighteen lines now making this port either their terminus or port-of-call.

Halifax is a favorable location for manufacturing successfully, especially for export trade. It is situated at a focal point of three important systems of railways, with convenient local costal as well as ocean communication, and has one of the finest harbours in the world—probably only surpassed by one, that of Sydney, Australia.

At the present time, there are some eighty manufacturing industries in the city, a number of them competing successfully for a share of the trade with Canada, as well as abroad.



Concrete Poles---Manufactured in Halifax

The city is the seat of the sugar manufacturing industry of Eastern Canada. The Acadia Sugar Refining Company have a large refinery at Richmond, and is now building at Woodside, a plant that will be the largest, when completed, in Canada. The company will manufacture 4,200 barrels per day, or practically half the daily consumption of sugar in Canada. This industry employs a large army of men and the value of its output runs into the millions.

One of the largest paint factories in Canada is situated in this city, with branch factories and warehouses in St. John, N.B., Montreal, P.Q., and Winnipeg, Manitoba.

One of Canada's largest confectionery and biscuit factories is also situated in Halifax. The trade of this company has increased to such an extent that last year a new factory was built which trebled their output.

Large railway car works, with a capacity of twenty steel and wooden cars per day, also gives employment to a large army of men, and is one of the most modern and complete plants of its kind in Canada.

A cotton factory gives employment to some five hundred hands.

Besides the foregoing there is a large boot and shoe factory, large wood working mills, three large breweries, machine shops, cold storage plant, large cordage factories, and numerous other factories generally found in a manufacturing city.

Halifax also has the advantage of having the greater portion of the exports of the factories situated in the provinces passing through it.

According to Government returns, in 1905 there were, in Nova Scotia, 909 manufacturing establishments, with combined capital of $75,089,191 invested, employing 22,135 persons, and a payroll of 7,751,278; the output of goods and wares were valued at $32,574,323. In 1910, the output increased to $62,080,000, and of this amount the factories of Halifax contributed $16,240,000. In 1912, the estimated output of the different factories of Halifax, including made fish and fish products, was $21,470,000.

On account of the varied natural resources of the Province (no other province in the Dominion, save one, has as great variety) and on account of its location, Halifax is gradually becoming a city of smoke-stacks, and the number of employees is increasing yearly.

The exports from the port of Halifax for the year 1911 were valued at $12,156,019, while in 1912, they were $15,467,270—an increase of $3,311,251; the imports in 1911 totalled $9,836,974, and in 1912, $11,512,546—an increase of $1,675,572; customs receipts for 1911 were $1,774,986, as compared with $2,117,609 for 1912—an increase of $342,623.

In shipping, the port of Halifax made the greatest strides. In 1911, it totalled 2,479,029 tons; in 1912, it had grown to 3,111,535 tons—an increase of 632,505 tons. When it is known that the increase at Montreal, which is generally looked upon as the "Liverpool of Canada," was 115,244 tons, and that there was a general decrease in the other ports of Eastern Canada, it will give some idea of the advancement of this port as a shipping point. Already arrangements have been made for two more lines of steamers to make Halifax a port-of-call during the winter of 1913-14, both of them coming from countries having no direct connection with Canada previously.



A Residential Street in Halifax

The Growth of Traffic.

In rail freight, there was a very great increase. In 1911, the Intercolonial Railway handled 80,747 cars at this point, and in 1912, 95,834 cars—an increase of 15,360 cars, or practically 44 additional cars for each working day in 1912 over 1911. Placing the general average of 15 tons per car, would mean an increase of 230,400 tons in one year by this one line. Substantial increases were also made in the tonnage handled by the Dominion Atlantic Railway (C.P.R.), and the Halifax and South Western Railway.

The Halifax and Eastern Railway, now building, will open up a very fine farming section of the country. This line has been graded to Dean's Settlement—a distance of about 42 miles.

A very great increase was also made in immigration; during 1911, 55,887 immigrants entered Canada through this port, and in 1912, 70,702—an increase of 14,815.

On account of the enormous increase in the shipping of the port, the Federal Government have decided upon a large expenditure—the plan is a comprehensive one and its completion, it is said, will mean an estimated outlay of about thirty million dollars. This new terminal is situated at the extreme point of Halifax—a distance of about two miles from the present terminals, and consists of a landing stage 2,000 feet long, six piers 1,250 feet long by 300 feet wide, fitted with sheds for freight and immigration purposes; a terminal station, with architecture similar to the new Grand Trunk station at Ottawa, and two tracks traversing the entire western portion of the city. A new concrete pier is being built at the present terminals, at a cost of upwards $1,000,000; and a second pier, which will represent a similar outlay, is planned for the same point. At Fairview a classification yard is to be built, 5,500 feet long and from 500 to 1,000 feet wide.



View of Residential Section, Halifax

Other Improvements Coming.

In addition to this, the Government is also erecting buildings at the quarantine station at Lawlor's Island, at an outlay of $30,000; $500,000 also appears in the estimates for a dry dock at Halifax. The necessity of a second dry dock having been shewn the past winter, the Department of Militia and Defence have expropriated a large portion of MacNab's Island where, it is understood, a new fort will be built, and the present fortifications of the harbour will be modernized.

Among the civic expenditures are $150,000 for a new public market; $150,000 for a reservoir, water tower and pipe extension; and $100,000 will be expended this season on the western slope sewerage. There is also a large amount of paving being done, for which $100,000 has been appropriated.

The Governors of Dalhousie University have started the erection of a new Science building on the Studley grounds, purchased by them some two years ago. At this point, $500,000 will be expended during the next year or two.

The Dartmouth Ferry Commission are building a new ferry terminal at the foot of George Street, at an estimated outlay of $25,000.

There are at present new business and other buildings planned and under construction amounting to $980,000 in value.

On account of the enormous expenditures slated for the city, many real estate transactions have taken place during the past several months and property to the value of several million dollars has changed hands. Sub-divisions are now being laid out, and lots sold at price almost threefold of what they could have been purchased for three years ago. There is generally an optimistic feeling about the city, and confidence for the future is expressed on all sides.

Flour—R.W.C., f.o.b., 3715, Johannesburg, S. Africa, seeks to represent a good mill manufacturing Hard Winter or Spring wheat flour. Would like samples and quotations.

HALIFAX CONVENTION, SEPT. 16-18

CANADA must solve her greatest industrial problems during the next few years. Many questions concerning manufacturing, transportation, tariffs, insurance, legislation and immigration will be discussed at the Canadian Manufacturers Association Convention which will be held at Halifax, Sept. 16, 17 and 18. Are you going to help? Come to the Convention and speak out in meeting.

In addition to the serious side of the Convention, take notice of the following itinerary, which provides for a happy journey.

Sept. 14—Leave Toronto	9.00 a.m.	C.P.R.
" 14—Leave Montreal	8.00 p.m.	"
" 15—Arrive St. Andrew	11.30 a.m.	"
" 15—Leave St. Andrew	10.00 p.m.	"
" 16—Arrive Truro	9.20 a.m.	I.C.R.
" 16—Arrive Kentville	12.30 p.m.	D.A.R.
Brief stops at Wolfville and Grand Pré.		
" 16—Arrive Halifax	3.30 p.m.	"
C.M.A. Annual Meeting, Sept. 16-18.		
" 19—Leave Halifax	5.00 a.m.	I.C.R.
" 19—Arrive New Glasgow	8.15 a.m.	"
" 19—Leave New Glasgow	12.00 noon	"
" 19—Arrive Amherst	3.50 p.m.	"
" 19—Leave Amherst	6.00 p.m.	"
" Arrive St. John	10.45 p.m.	"
" 20—Leave St. John	1.00 p.m.	Victoria S.S. Co.
" 20—Arrive Fredericton	7.00 p.m.	"
" 20—Leave Fredericton	10.00 p.m.	C.P.R.
" 21—Arrive Montreal	1.00 p.m.	"
" 22—Arrive Toronto	7.30 a.m.	"

After reading this, you can't stay at home.

The excursion will leave Montreal on a Sunday evening, and will be back the following Sunday by noon, or shortly after. Passengers from Toronto may leave as late as Sunday morning, and be home again a week from the following Monday. In either case, the trip will involve an absence from business of just one week.

On arrival in Halifax, the ladies of the party will be entertained at afternoon tea by the Local Council of Women, at their Chapter House.

The opening function will be a Reception at the Province Building, on the evening of Tuesday, September 16th, tendered jointly by the Nova Scotia Government, the City Council, and the Nova Scotia Branch of the C.M.A. On Wednesday afternoon there will be a motor drive around Bedford Basin for the ladies, followed by a Band Concert in the Public Gardens and a Theatre Party for the ladies in the evening. Thursday afternoon all delegates will be taken for a sail around the Harbor, up Bedford Basin, through the Eastern Passage, along the North-West Arm to the Waegwoltic Club. The Convention closes Thursday evening with a banquet at the Halifax Hotel.

The business sessions will be held Wednesday morning and afternoon (possibly in the evening as well) and Thursday morning. All meetings will be in the Technical College.



Harbor at Port Arthur, the Spout of the Grain Funnel

CANADIAN GRAIN EXPORT ROUTES*

By K. JOSEPH

THE Canadian Northwest grows enormous quantities of wheat and other grains; Great Britain, some 5,000 miles away, has need of very much more grain than she can herself produce. Canada, therefore, sends nearly all her surplus grain to Britain, and the problem for Canadian exporters, in competing for this trade, is to find the cheapest possible route to their market.

Nearly all the export grain is grown in Manitoba, Saskatchewan and Alberta. A network of railways, built largely for the grain traffic, covers these prairie Provinces. Most stations have small elevators to which the farmer brings his crops, and from which the railway cars are loaded. There are over 2,000 of these local elevators in the West, and in the smaller places, where there are none, grain-loading platforms have been built by the railways, and, by using these, the farmer can easily transfer his produce from cart to car. Many of the small places have temporary station agents appointed only for the grain-shipping season, to facilitate the loading and despatch of cars.

In the near future the loaded car will have several routes open to it. It can go east, to have its contents shipped to England by the St. Lawrence or Atlantic Coast ports; it can go north, to make use of the Hudson Bay route, or it can go west for shipments via the Pacific and either the Panama Canal or the Tehuantepec Railway, thence to Europe. The first of these routes is, of course, the one used now, and it will probably always be used for grain. But the other two have advantages which their supporters claim will bring them a large share of the traffic. We shall therefore consider each one separately before comparing them, and can begin with the established route.

Great Lakes and Atlantic Route.

Grain now is nearly all brought to Winnipeg, where it is inspected and graded by the Government. From here it continues to the head of Lake Superior, keeping busy the five lines of track, those of the Canadian Northern, G.T.P., and two lines of the C.P.R. to Fort William and Port Arthur, and that of the Great Northern Railway to Duluth. At these ports it is unloaded into huge elevators for transhipment to vessels or for storage.

The elevators at Fort William and Port Arthur are marvels of despatch and efficiency. They have a combined total capacity of 43,000,000 bushels, with additions under construction this year which will raise it to 56,000,000. Cars are unloaded in a very short time, and steamers are filled with even more despatch. On one day last autumn fourteen vessels arrived at the various elevators at these ports, took on over three million bushels of grain, and sailed before night. One of them, the "Emperor," was loaded with 330,000 bushels in four hours.

These ships have various ports as their destination, and, unfortunately for the Canadian route, about one-third of the grain from the twin Thunder Bay ports goes to the American side of the lakes, principally to Buffalo. The Erie Canal and numerous railways bring the grain cheaply to New York, Boston and Portland, and as ocean steamers from these ports pay considerably lower insurance rates than those from Canada, lower steamship rates to Europe generally prevail.

Of the grain shipped for export through Canada, a certain amount goes right to Montreal by water, either without transfer or with a change to a smaller vessel at Kingston or Prescott, at the head of the St. Lawrence River. But most of the ships go to Georgian Bay ports.

The Georgian Bay transfer and storage facilities are somewhat similar to those at the head of the lakes, except that the loading and unloading are reversed and also that there is no one harbor which receives the bulk of the trade. Port McNicoll, with an elevator capacity of four million bushels, is the newest and largest receiver of grain. Tiffin, Midland and Depot Harbor each have elevators holding two million bushels or more, and there are several other more or less important ports on the Bay, and on adjacent shores of Lake Huron.

These places are all served by lines of the Canadian Pacific and Grand Trunk Railways, which bring the grain to Montreal. The journey can be made very rapidly, as each company has a number of lines, converging in each case to a double-track main line to Montreal.

*This article is the essay which won the first "INDUSTRIAL CANADA" Scholarship awarded at McGill University.

Montreal has the same modern equipment as have the other transfer points, and, with the addition this year of a three and a quarter million bushel elevator, has a storage capacity of nearly six million bushels. The elevators discharge into ocean steamers, but as these rarely carry an entire cargo of grain, the marine legs of the elevators reach to all parts of the harbor, and grain is loaded at the same time as other cargo, without interfering with the handling of it.

We must follow the grain until it has left Canadian waters, because the long trip down the St. Lawrence is one of the strongest points, as well as a weakness, of this route. It is this waterway which gives cheap transportation from the interior of the continent, and were it not for St. Lawrence navigation, practically all our grain would go through American ports. But the long inland voyage is considered by the marine underwriters to have many dangers, and the number of accidents on the St. Lawrence in recent years seems to support their opinion. Insurance rates are therefore high, increasing the transportation charges. This does not have much influence on regular liners, which depend mainly on passengers and high-class freight, but which take grain as a good return cargo. But the effect on tramp steamers, having no regular route, is serious. During the past season, out of 406 visits from ocean steamers to the port of Montreal, there were only 20 from tramps. It is true that tonnage is scarce this year, but the St. Lawrence route, on account of the insurance rates, is one of the first to suffer in a time of scarcity.

Having seen our grain on the direct road to Europe, we can leave it to look at the cost of the transportation.* There is first the railway rate from the point of production to the head of the lakes; this varies from 15 cents a bushel from western Alberta to 6 cents from Winnipeg. Regina is a convenient place to consider as a centre, and it has a rate of 10.8 cents. The rate on grain for export from Fort William to Montreal varies from year to year and from month to month; six cents is an average figure for the past summer season. Of this amount, only from one to three cents is for the long lake voyage. From Montreal to Liverpool there is also a changing rate, which, during 1912, ranged from 13 3-4 cents to 20 cents. The total rate from Regina to Liverpool during 1912, found by adding the above, was from 30 cents to 37 cents a bushel. This total is subject to wide variations, and at times steamers have taken grain across the ocean for practically nothing as ballast, but the figures for the past year are about normal, or very little higher. It might be noted that the same rates are given by the railways on export grain from Georgian Bay ports to Halifax and St. John as to Montreal, so that the long extra rail haul costs the shipper nothing.

The Thunder Bay Fleet.

Most of the grain that is too late to be shipped by the summer route is kept until the following season. The elevators are supplemented in the storage of this by a fleet of steamers which winters in Thunder Bay and carries several million bushels ready to move just as soon as the ice on the lakes breaks up. A charge of about two cents per bushel is made for this storage. A certain amount of grain, generally less then ten per cent. of the total moved, is, however, taken east in winter, and must pay the higher charges for the all-rail haul from the prairies to the Atlantic coast.

It is frequently asserted that the Grand Trunk Pacific will provide an all-rail route as cheap as, or cheaper than, the present rail-and-water one. Possibly it will do so, but some of the statements on the subject, made on apparently good authority, are grossly exaggerated. For instance, *Engineering News*, in an article compiled from information given by the Assistant to the Chairman of the Transcontinental Railway Commission, arrives at a probable rate of four and a quarter cents a bushel for grain from Winnipeg to Quebec. This is obtained in the following way: The earnings per train mile are assumed to be $4.40, or double those of the Canadian Pacific Railway for 1908. A Mallet engine will haul 95,333 bushels of wheat in one train, the distance is 1,351 miles, so that the rate to be charged is 4 1-4 cents a bushel. The result does not check out correctly from these figures, but that is probably due to some slip in the preparation or printing of the article, and is not important. But there are two very misleading assumptions in the calculation. The average freight train earnings of the C.P.R. for the year taken were probably $2.20, as quoted, but a full load of grain is not by any means an average train. The cars bringing grain must often be hauled back empty, engines often cannot be loaded to their rated capacity, and large quantities of coal and other low class freight are hauled cheaply, all bringing down the train-mile earnings. If we take present grain rates, and the capacity of existing Canadian Pacific locomotives over the parts of the line where the rates apply, we find that on a full load of grain the earnings are generally from five to six dollars per train mile.

The other false assumption is in using a Mallet engine. This type of engine is practically two engines with one large boiler, and it costs about as much to operate as two engines. Further, it is essentially a locomotive for use on heavy grades, and would never be used on the practically level Transcontinental Railway.

However, if we assume a type of freight engine as the Grand Trunk Pacific is now using on its lines, and still take $4.40 as the train mile earnings, a rate of 11.7 cents, or in round figures 12 cents, is obtained, or about four cents less than that now in effect from Winnipeg to Montreal. But it does not by any means follow that the rate will be anything like this, nor can the rate be even approximately calculated by the method used.

Of the proposed Georgian Bay Canal in connection with the St. Lawrence route, not much need be said, as its construction is far from certain. The Toronto Board of Trade has issued a pamphlet giving some very strong arguments against the project and in favor of increasing the depth of the Welland and St. Lawrence Canals; the Federation of Canadian Boards of Trade has replied in another pamphlet, and is equally strongly in favor of the canal. If the canal is constructed it will cost the people of Canada at least a hundred million dollars, sufficient to build a double-track railway from Georgian Bay to Montreal, and to operate it without charging a cent for freight. It may be questioned whether the expenditure is worth while.

Hudson Bay Route.

Hudson Bay was navigated long before the Canadian West was known as a wheat-growing country; the Red River and other colonists came to their new homes through ports on the Bay, and ever since it has been considered as a possible outlet for the produce of the prairies. Now, however, with a railway to the Bay actually under construction this route is a real factor in the grain transportation field.

Let us then follow the grain by this route. The Canadian Northern Railway is the only line at present connecting with or anywhere near the new Hudson Bay Railway, so the grain will go east through Prince Albert if it comes from Saskatchewan or Alberta, or west from Dauphin if from Manitoba. On the Canadian Northern line joining these points is Hudson Bay Junction, and here the trains take a branch of the same railway to Le Pas.

*It will be convenient to reduce all rates to cents per bushel; lake rates are so quoted, all rates are in cents per hundred pounds, and ocean rates in shillings and pence per quarter.

The Dominion Government is constructing the remainder of the line, commencing at Le Pas with a steel bridge over the Saskatchewan River. Whether the Government will operate the line or lease it is not yet decided. Government ownership and operation is very popular in the West, and it is for the benefit of the West that this line is being built. Westerners want their "People's Railway," as Easterners have the Intercolonial. But the people of the Maritime Provinces have not found Government ownership a success, and the Government itself has also learned that. It is very possible, therefore, that the line will be leased if the pressure of the Western grain-growers is not sufficient to secure Government operation.

The terminus of the line is not finally decided yet, and the construction is therefore under contract only as far as Split Lake, where the routes surveyed to Port Nelson and Fort Churchill divide Nelson, however, is apparently destined to be the terminus; it is eighty miles nearer Le Pas, and its harbor is considered to be better capable of development than that of Churchill. Mr. J. Armstrong, Chief Engineer of the Hudson Bay Railway, reported that though the latter place had a natural breakwater and its harbor was therefore better at present, he considered that Nelson would make the better port. A channel can easily be dredged through the sand banks which partly bar the mouth of the Nelson River, and already the Government has sent fifteen buoys to mark that channel. Another important advantage of Nelson is that it is open for seven or eight months of the year, while Churchill is only open for four or five months.

At the Hudson Bay port the grain will be transferred to steamers, the only transhipment between the local elevator and Europe. It is the dangers, or supposed dangers, of Hudson Bay navigation which make the success of the route doubtful.

Up till now there has been very little business to attract ships to the Bay, and not many have come. But ever since 1668 the Hudson Bay Company has sent one or more ships there annually, and they have suffered very few mishaps, especially when one considers how imperfectly the waters there were known. Other fur traders, sealers, and explorers have also navigated the Bay during that time. More recently the Canadian Government has sent several expeditions to study the question of navigation there, and they have mostly confirmed the opinion of Commander Gordon, who, in 1886, reported that Hudson Bay and Strait could be safely navigated for three or four months a year "by specially constructed ships." Mr. A. P. Low, who spent several seasons in and near the Bay, and who had charge of the C.G.S. "Neptune" in 1903-04, gave the dates of safe navigation as July 20th to November 1st, three and a half months. He found that after November 1st the cold temperature, often below zero, causes dense fog, and there is danger of ice being carried across the mouth of Hudson Strait by the Arctic current. Before the middle of July there is still much ice in the Bay; in fact, melting only commences in the last days of June, but it takes place very rapidly after that. He considered that ordinary iron steamships were suitable. The latest expedition, from observations made in 1911, an unusually cold winter in the north, does not state the length of the season of navigation in its report, but the opinion of those in charge seemed to be that specially built vessels would be necessary.

Apart from the ice, the passage through Hudson Straits and across the Bay is an ideal one, 50 to 200 fathoms in depth, wide, there are no shoals, and the shores of the Straits are bold and well marked. So much for the physical characteristics of the route.

Another Hudson Bay navigation scheme might be mentioned. That is, to take the grain from Nelson by steamer



The "Port Nelson," the Steel Hydraulic Dredge built by the Polson Iron Works, Limited, for the Dominion Government in 100 days. It is now on its way to Hudson Bay, where it will be used to deepen the terminal port of the Hudson Bay Railway, by which Western Canada hopes to ship grain to Europe.

to Nottaway, at the mouth of the Nottaway River, on James Bay. A subsidy has been promised and a charter given for a railway from Montreal to Nottoway, and grain could be brought by this line to Montreal or Quebec and shipped by the St. Lawrence River. A great saving in distance over the present route would result. But it must be remembered that distance is of no account except as affecting cost, and the cost of using such a route, at any rate until Hudson Bay navigation is better established, would probably be prohibitory.

Rates via Hudson Bay can only be estimated. From Regina to Port Nelson is 916 miles by existing routes, and taking the same rate per mile as from Regina to the head of the lakes the charge per bushel would be thirteen cents. This would allow an ocean rate of about four cents a bushel more than by the St. Lawrence for there to be competition. For more northern wheat districts a larger differential will still divide the traffic; for shipments from Prince Albert, using the same rate basis for the haul to Hudson Bay, a difference of 10 1-2 cents between the ocean rates will secure competition.

Pacific Coast Routes.

The general characteristics of the Panama Canal and Tehuantepec Railway routes are sufficiently known to make a description of them unnecessary. If we again take Regina as our central point there is a rail haul of 1,126 miles to the Pacific coast, and thence, from the ports of Vancouver and Prince Rupert, ships will sail south, either direct to Great Britain through the Panama Canal or to Salina Cruz, in Mexico, across the Isthmus of Tehuantepec by rail, and then by ship from the port of Coatzacoalcos.

The Tehuantepec Railway has been in operation since 1906, and soon after that its possibilities were investigated by Canadian transportation interests. It was found that the cost of shipping by this route was very much higher than by the east; so high as to preclude any chance of its being used.

The Panama route is very similar, but charges will be lower by it. In the first place, the Grand Trunk Pacific will probably reduce rates from the prairies to the Pacific Coast. The Canadian Pacific, on account of the high cost of maintaining and operating its line through the mountains, bases its rates on a constructive mileage, making 1,466 miles from Regina to Vancouver, instead of the actual mileage of 1,126. The Grand Trunk Pacific, with its easier grades, will perhaps not adopt a constructive mileage basis for its rates. Also, the cost of passing through the canal will, according to Professor Emory Johnson, who investigated the tolls to be charged at Panama for the American Government, be much less than that of using the railway, which has been charging 7 1-2 cents a bushel.

But the distance from Vancouver to Liverpool by the canal is 8,676 miles, as against 2,950 from Montreal to Liverpool, and this enormous difference will make the Pacific rates higher than those by the Atlantic by more than the few cents necessary to place the routes on a competitive footing. There is also the objection that grain passing through a warm, moist climate like that of Panama is liable to "sweat." It is said that this can be overcome by shipping the grain in bags instead of in bulk; this would necessarily add to the cost of carriage. Probably occasional shipments will be made by vessels which bring a cargo to the Pacific ports, and which may find it profitable to take a return cargo of grain at any rate that will secure it.

Comparison can now be made between the routes, though it cannot be quite conclusive until all are in operation. The Panama route has the advantage of being available all the year, the St. Lawrence and lakes are open for seven months, and Hudson Bay and Strait for three and a half months. The St. Lawrence could easily be kept open all the year as far as Quebec, and even now Government ice-breaking steamers make monthly trips all winter from Quebec to the Gulf of St. Lawrence ports. If specially strong steamers are built for the Hudson Bay trade, as is done for trade to northern Russia and Siberia, it seems likely that they will sail from the St. Lawrence during the winter.

The great and increasing storage capacity of the terminal elevators enables grain to be shipped at a time when the best route is available. This storage policy is extending even to the farmers, who are beginning to see that it is to their advantage to build granaries and to store their own grain. They are to be aided in this by the new Banking Act, which permits banks to lend money to farmers on the security of grain so stored.

American competition for the export shipments is becoming more and more serious. In the past year an increased percentage of Canadian grain was shipped through United States ports, while not a single bushel of United States grain passed through Montreal.

The Grand Trunk Pacific may prove a remedy for this; the deepening and improvement of the present canal system until the largest steamers on the lakes can come to meet the ocean steamers is a more certain one. The Georgian Bay Canal will perhaps be constructed, and even though its economic value to Canada as a whole is questionable, it may reduce grain rates. Lastly, improvements in the St. Lawrence ship channel and the better port and ship-repairing facilities under construction or planned for Montreal, Quebec and St. John should reduce ocean insurance and freight charges from these ports. Moreover, the Hudson Bay channel, part of the Erie Canal system, has been declared incapable of being deepened beyond twelve feet, its present depth, owing to lack of water, and there is not the same room for improvements in the American system that there is in the less developed Canadian one.

To sum up, the St. Lawrence is likely to get the bulk of the Canadian grain trade in spite of competition from the other Canadian and American ports. Panama does not seem suitable as a grain route from Canada, except for occasional shipments at very low steamship rates. Hudson Bay will probably serve as a shipping port for some of the grain from the northern parts of the western Provinces, but will not secure traffic from the central portion.

TOKYO EXHIBITION, 1914.

An exhibition is to be held in Uyeno Park, Tokyo, from March 20th to July 31st, 1914, under the auspices of the Tokyo Prefecture. It will not be international, but foreign exhibits will be accepted as "specimens" not eligible for awards. Applications for space must reach the President, Tokyo Taisho Exposition, Tokyo, not later than October 31st next, and the latest date for the receipt of exhibits is March 15th, 1914.

QUEBEC FIRE PREVENTION LEAGUE.

To try and reduce the fire waste in Montreal and the Province of Quebec, generally, a joint fire committee has been formed by the Manufacturers' Association, the Board of Trade, the Montreal Electric Association, the Montreal Architects' Association, the Builders' Exchange, and the Fire Underwriters' Association. Representatives of these organizations have met, and formed a committee, composed of Messrs. Howard Murray, W. E. Findley, Wardleworth, Perrault, and R. L. Werry, to draft a form of constitution for the organization, for which incorporation will be sought.

WHAT DETERMINES THE COST OF A FACTORY BUILDING?

It is not a unique thing to hear the cost of mill-construction building quoted at all the way from seventy cents to one dollar or more per square foot of floor space, regardless of the ground area or number of stories. There is a wide range of floor cost per square foot, however, depending upon the length, the breadth, the height and the number of stories.

It is found in general that the minimum cost per square foot of area is obtained in the four-story building, which is a little less costly per unit than a three-story of the same outside dimensions. This is due to several causes. The cost of ordinary foundations does not increase in proportion to the number of stories. The cost of columns per story does not vary a great deal for additional stories. The real determining factor is the most of the walls. The increase in cost due to this item off-sets the relative savings on foundations and roof when four stories are reached, and this height, therefore, represents the cost balance which gives the best economy.

With concrete buildings of the wall-bearing type, the same criterion approximately holds, although the effect of the decreasing cost of forms as the height increases offsets the increasing cost of the walls and decreasing value of floor space, so that the minimum cost per square foot of area for concrete buildings obtains at from four to five stories.

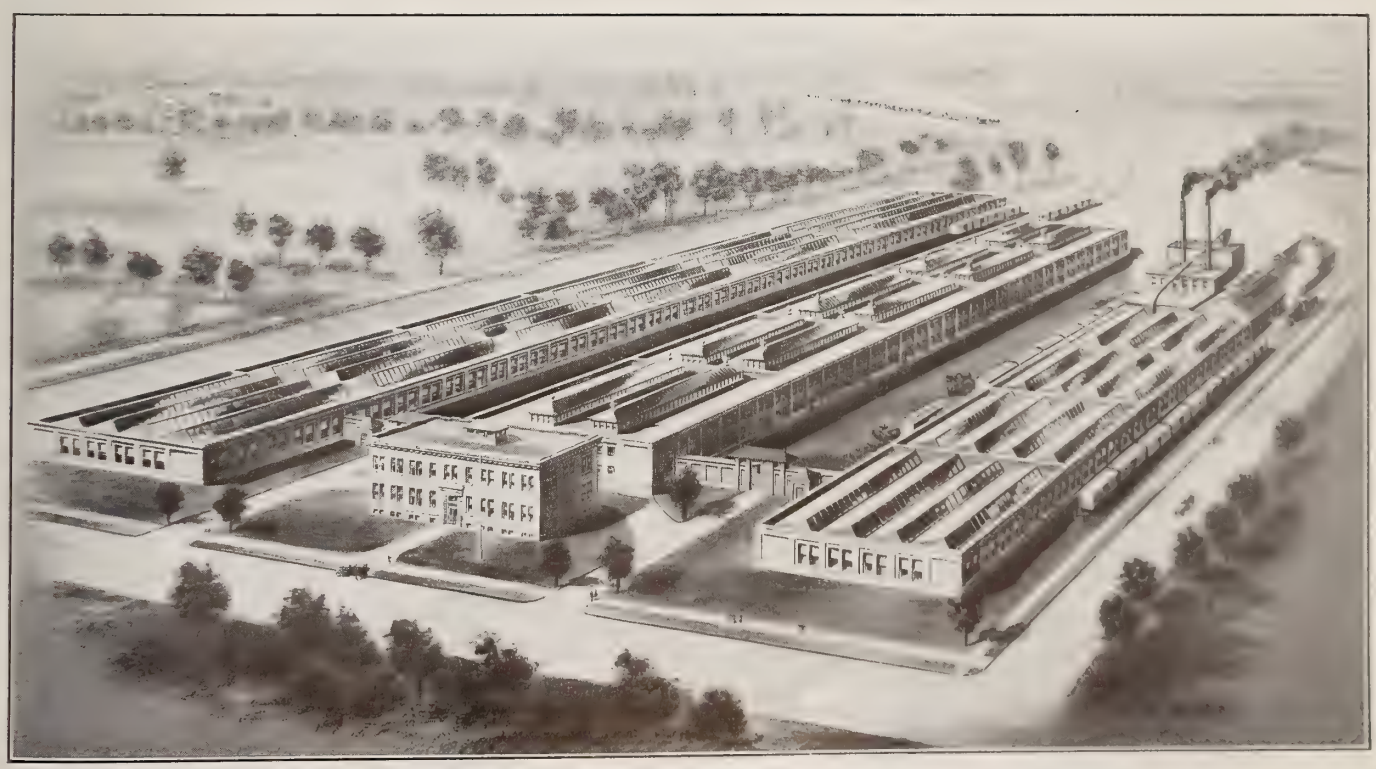
With concrete buildings of the skeleton type, where the side walls are uniform in thickness from bottom to top, regardless of the number of stories, the decreasing cost of forms to the height increases shoves the maximum economy at least one more story up, and in the case of light floor loads, probably two to three stories higher (that is, at seven to eight stories). In this case, it is the increasing cost of columns and footings, together with the increasing cost of doing work as the stories pile up, which finally offset the increasing economy of forms and other economies a function of the number of stories.—W. B. S., in *Factory*.



New Factory Canadian Carbonate Company, Limited, Montreal

NEW KNITTING CONCERN.

The Perfect Knitt Mills, Limited, has closed negotiations with the town of Listowel, Ont., for a loan of $10,000, and a sweater manufacturing plant will be started at once in that town. The machinery of the Keystone Knitting Co., of Georgetown, Ont., is to be moved to Listowel, and Mr. F. J. Barter, the proprietor, is to get $3,000 worth of stock in the new company. New machinery will be added. Mr. Max Becker, formerly with the F. B. Robertson Co., of Toronto, is the moving spirit in the new concern. It is expected that the plant will be ready for manufacturing about the middle of October.



A Birdseye View of the Great Plant Which the De Laval Dairy Supply Company are Building at Peterboro



By J. E. WALSH

THE Canadian Northern Railway is attempting to divide the forces of the Western farmers and Canadian manufacturers who are fighting for a readjustment of Western freight rates. The railway believes that if it can arouse suspicion in the minds of Western farmers and can stir up opposition to Canadian manufacturers it may be successful in adopting the well-known ruse of tricking allies of a common enemy into disastrous conflict. The following circular was published on August 12th in the Manitoba *Free Press*:

"To whom it may concern.

"It has come to the notice of the agents of the Canadian Northern Railway that certain manufacturers are bringing pressure to bear upon the Railway Commission to obtain many reductions in the present freight tariffs. The effect of the proposed reductions will not, it is sure, be of benefit to the farmers of this district in any way, as it will not be utilized to reduce the cost to the consumer. The reductions, if they become effective, will, however, prove a very serious detriment to the farmers of Saskatchewan, as the Canadian Northern Railway, in common with the other railways operating in the province, will be compelled to do much less construction work than is at present contemplated, as well as the ordering of new equipment to handle the present year's grain crop, and farmers will find that branches which they expected to help them out in various parts of the province will not be constructed on account of the Canadian Northern being unable to finance the work. It is evident that the Canadian Northern is not now making huge profits, as they are unable to get along this year without borrowing $22,000,000 for construction. We, the agents of the C.N.R., have met and decided to ask you to petition the Railway Commission not to grant these proposed reductions, as we feel that they are not to your advantage. Petitions may be signed here on application to the agent."

The attempt to draw off the fire of the Western farmers by telling them that the chief demand for a readjustment of freight rates originated with the Eastern manufacturers who wanted to increase their profits in trading with the West is too apparent to be effective. The readjustment of freight rates must come in the near future, and the railways would strengthen their position with Government and people if they bowed to the inevitable instead of maintaining a costly warfare against the wishes of the country.

We are quite aware of the sacrifices made and the efforts put forth by the Canadian Northern Railway in transportation. We are also aware of the enormous grants of land and money which have been made to that railway company by the people and Government of Canada. The farmers of the West have paid their share in taxes and have aided the railway by patiently submitting to poor service in order that the company might save its money to build new lines. The manufacturers have tolerated poor service and high charges for the same reason. The manufacturers want to see the great system of the Canadian Northern develop and flourish. We would refer the company to the following editorial which appeared in the May issue of INDUSTRIAL CANADA:

"The Government should give financial assistance to the Canadian Northern Railway only on condition that it will be used to provide better service for the country.

"If this assurance is given, a great enterprise like the C.N.R. should not be crippled for lack of funds. For the past sixteen years the C.N.R. has built railroads at the rate of a mile a day, with capital secured largely through the untiring energy of Sir William Mackenzie. At the end of 1912 their total mileage was about 7,000. During that year their gross earnings were $20,860,093, an increase of 27.5 per cent. over 1911. They have let every contract on their transcontinental line between Quebec and Port Mann. These great efforts are made, of course, in the interests of the directors and shareholders, but the quality and quantity of the service they sell are vital matters to shippers and receivers of freight.

"We need more railways, more engines, more cars, more sidings, more of everything that is included in the operation of a railroad. If the C.N.R. wants money to buy these things, the Government will benefit the country by giving it to them, but there should be a clear agreement concerning expenditure and service."

In return for their encouragement and assistance to the Canadian Northern Railway what do they receive? Judging from the above circular they are to receive the hostility of their present allies, the Western farmers (if the railway can accomplish it), the continuance of the present inadequate service in the East, and the unjustly high rates in the West?

The Western farmer will scarcely be deceived by this doubtful strategy of the Canadian Northern. They know that the great sum of money which has recently been received by the Canadian Northern from the Dominion Government can be spent on building branch lines, if the company intend to build any; and that the readjustment of the freight rates will result in their getting their supplies from the East at lower prices.

MAINE HIGHWAY LAW.

Maine motorists are regarding the new highway law with mingled pleasure and pain. The pleasure part is experienced when it is considered that the bill provides that all trees must be removed from dangerous turns and at railroad crossings, and that no advertising signs can be erected within 500 feet of crossings. All state roads must be furnished with signposts, of a uniform size and height, by the various towns. Part of the bill legislates against the motor truck, providing that trucks having a total weight of over nine tons must obtain a special license. Speed limits are set for all machines, ranging from fifteen miles an hour for light trucks to six for the heavy ones.



INSURANCE

E. P. HEATON

THE writer of this page has just returned from a brief visit to Germany and Great Britain, and while it is tempting to refer to matters other than insurance, the Editor would probably blue pencil any remarks on any other subject and I must, therefore, let them pass.

The one question I heard more frequently than any other was, Why is your fire record in Canada so heavy? Of course, my chief business was to circulate amongst men interested in this question, and as far as I was concerned it was not the naval question, speculation in land or the possibility of the crops so much as the one I have thus tersely put.

No agreement will ever be reached concerning the why and wherefore of this fact, but there is unanimous accord in Great Britain and in Canada that our fire waste is absolutely unjustified, that it might be very materially reduced if resonable and ordinary precautions were taken and that the remedy must be applied or rates materially increased to meet the existing condition.

That the remark I have just repeated is justified is amply borne out by conditions in June and July of this year. Our total fire waste for the seven months is $17,000,000, about $750,000 more than last year during the same period. Two outstanding facts in this connection are worthy of record. The first is that so far this year we have not had any conflagrations, whereas last year for the same period we had three where the aggregate loss was over one million and a half in each case. The second fact is that this year we have had 258 fires where the loss was in excess of $10,000. Last year in the same period we had 158, a difference of exactly one hundred as against this year. In the seven months of 1910 we had 130 fires of over $10,000. In other words, in 1913 we have had 100 more than last year, and almost double the number of three years previously.

As a matter of interest, I may record that of the 258 fires in Canada this year, 96 have been due to manufacturing risks and storehouses in connection therewith.

There is food for thought in these statements and ample room for strenuous effort on the part of the various fire prevention organizations now existing and to be brought in to existence.

It is not unusual for us to hear that the enormity of our fire waste may be contributed to by the generosity and undue promptness of companies in paying claims. I think part of an article which appeared in a recent issue of the *Chronicle*, Montreal, is well worth quoting in this connection.

"'Not only is there the failure to realize that the man who tries to get a 'generous' settlement out of a fire insurance company is merely attempting to steal the clothes of the friends who are whooping him on to the task and of everyone else who pays fire insurance premiums, but the general attitude towards the fire loss also leaves something to be desired. Under present circumstances, the man who has a fire enjoys the sympathy of his community. Perhaps he deserves it, but it would be more conducive to the reduction of the fire loss and the consequent reduction of fire insurance premiums, if instead of being regarded with nothing but warm sympathy, he were shown some of the chilly official austerity with which a man who has a fire is regarded in some of the countries of continental Europe. It seems clear that while the present campaign of education in fire prevention and reduction which is being energetically pushed throughout this continent will in time do good service, the full benefits of it will not be reaped until it is coupled with a policy of active restriction, such as is followed in Germany and France. When the State brings to bear its police power on the people who clamor for 'generous' settlements and the like, there may be a fair chance of reducing the fire waste."

In a recent number, special reference was made to the withdrawal of all fire insurance companies except those of local organization from the State of Missouri because of adverse legislation. The withdrawal of insurance protection has been so strong a menace to all the financial interests of the State that it is not to be wondered at that tremendous pressure has been brought to bear upon the responsible State officers to withdraw the obnoxious legislation. The pressure has been too great; the difficulties have been settled and on August 12th the insurance companies returned to the State under proper guarantees and once again manufacturers and merchants can obtain the protection necessary to maintain their credit.

We are looking forward to this experience demonstrating how far the withdrawal of insurance companies and protection would reduce the number and extent of fires occurring in the State, but the experiment is not going to be worked out. It is, of course, infinitely more important that the interests of the State should not be paralyzed for lack of insurance protection rather than that a theory should obtain a basis of confirmation and proof.

Latest advices from the State indicate that about 90% of the companies who retired have resumed business, but the same dispatches indicate that one effect of the withdrawal and the return to the State will be a material reduction in rates.

A. W. Damon, president of the Springfield Fire & Marine, has compiled a mortality record of Massachusetts fire companies, going back as far as 1862. Between that date and the present, fifty-six bay state companies have retired and the Springfield is the only one doing business in 1862 that is still in the ring. It was organized in 1849. Other Massachusetts companies now doing business were all organized since the Boston conflagration. The Boston was chartered in 1873 and for nearly twenty years confined its writings to marine business. The Old Colony was organized in 1906 and the Massachusetts Fire & Marine in 1910.



CUSTOMS



By J. R. K. BRISTOL

IN looking up answers to an enquiry by a member of the Association as to the tariffs of the Colonies represented in the British West India Agreement, it was observed that some were changing their tariffs so as to show separate from the general tariff rates, in a special column, the preferential rates of duty extended to Canada; and that some of these preferential rates gave slightly greater preference than the agreement called for. The need of early particulars on these new tariffs so that whatever advantages were afforded by the preferential rates might be known and availed of promptly, was taken up with the Department of Trade and Commerce, and the Department has undertaken to publish these new tariffs in their weekly report. The Department has already published in this way the new tariffs of British Guiana, Barbados, St. Vincent, and Trinidad. Information on the present tariffs of Colonies represented in the agreement and as to certificates of origin required on invoices in order that Canadian products may obtain the benefit of the tariff preferences, can be obtained from the Association tariff office. As to certificates of origin, it is reported that the Colonies are considering the adoption of one form which will be accepted in each Colony.

In connection with these preferential rates in favor of Canadian products it should be borne in mind that a drawback is obtainable of 99% of the duty paid on imported materials used in Canada in the manufacture of articles for export.

The following decisions have been announced by the Board of Customs:

Cut Glassware not classified for duty under tariff item 326A.

Portable Vibrators, such as Bee Pedestal Vibrators and Bee Portable Vibrators, adapted for scalp or body massage, declared to be dutiable under item 453. (General tariff, 27½%.)

Electric Douches held to be dutiable under tariff item 453. (General tariff rate, 27½%.)

Matrices for typecasting machines, item 441, duty free, effective on and from May 13th, 1913.

Rough Slate Slabs as taken from the quarry, for the manufacture of switch boards, item 711, duty 15% British Preferential, and 17½% special tariff.

Departmental Rulings.

Iridium, not refined or advanced in manufacture; item 329, duty free.

Rag Pulp; item 200, duty 15% under British Preferential Tariff and 25% general tariff.

Card Grinding Rolls, item 468 (duty 10%) when only adapted for use on carding machines.

Ceresine Wax, item 225, duty 10% so long as the melting point of such wax is 54° centigrade or over.

In reply to a request from the British Chamber of Commerce, Paris, the French Minister of Agriculture states that tins of salmon not stamped with the name of the country of origin and in stock in France after 29th June, 1914, can be sold without incurring any penalty. It is, of course, understood that the purchaser must not be misled as to the origin of the goods, and no unstamped tins of salmon will be admitted by the French Customs after the above-mentioned date, the toleration only excluding salmon already in stock on that date.

This concession will be appreciated by Canadian salmon packers, who have already completed this year's pack, which will be sold during the coming year.

Total Exports and Imports of the Dominion of Canada for the months of April, May and June (first quarter of fiscal year.)

Exports.	1911		1912		1913	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
	$	$	$	$	$	$
The Mine....	8,591,689	52.351	11,280,073	21,634	11,694,755	46.069
The Fisheries	1,946,223	25.489	2,321,994	18,659	3,218.848	23,617
The Forest...	8,118.773	497	8,969,403	102,527	9,232,914	16,459
Animals and their Produce ...	8,399,246	191.019	7,299,354	105.854	7,670,887	136,459
Agrculture..	10.772.518	2,026,827	36,970,899	1,066,123	40,124.383	634.977
Manufactures	7,771,265	1,469,441	9,410,618	1.918,684	11,544,573	3,158,225
Miscellaneo us	24,694	219,233	14,435	618,525	33,916	284,619
Total Mdse..	$54,624,408	$3,984,857	$76,266.776	$3.852,006	$83,520,276	$4,300.425

Imports.	1911	1912	1913
Dutiable Goods.....	$72,984,476	$101,150,548	$110,389,143
Free Goods.....	44,165,151	51,824.997	56,570,427
Total imports.....	$117,149,627	$152,975,545	$166,959,570
Duty collected.....	18,926,758	26,219.554	28,454,543

Exports and impotrs of coin and bullion not included in above.

BRITISH FIRM AFTER CANADIAN TRADE.

Mr. Benjamin Horton, presiding at the annual meeting of the Molassine Company, Limited, manufacturers of stock foods, said: "We have laid the foundation for a large business in America and Canada, the cost of which has been written off, and we anticipate a substantial income from these countries this year."

BONNER-WORTH ADDITIONS.

The additions being made to the Bonner-Worth Company's worsted spinning plant at Peterboro' are now nearing completion. The new addition is 72 x 66 feet, two stories, and new machinery has been installed that will double the former capacity of the plant, giving employment to about fifty more workers. In a recent interview, Mr. J. W. Worth expressed himself as being greatly pleased with the success that has attended the firm, and said that the demand for their product is exceedingly good.



LEGAL NOTES



By F. W. WEGENAST

THE discussions in the underwriters' journals show a constantly increasing realization of the tremendous difficulties attendant upon a system of private insurance in connection with a workmen's compensation system. These difficulties were anticipated by the Committee of the Canadian Manufacturers Association in formulating the policy of the Association and the plan presented to the Ontario Commissioner; but it was scarcely to be expected that the conclusions of the Committee would so soon be confirmed by the liability insurance companies themselves. The comments of writers on liability insurance in fact indicate something like a panic amongst the companies, and this impression is confirmed by the action of several companies within the last few weeks in making very large cuts in the operating expenses and commissions for new business.

The great and insuperable difficulty in liability insurance under the new systems of the different states of the United States and provinces of Canada is that of making even an approximate estimate of hazards and rates. If there had been any sound or methodical basis of rating under the older laws, the want of statistics and of experience under the new laws and the impossibility of anticipating the effect of the many variations in the laws adopted in different jurisdictions would have rendered the task of rating a hopeless one. Following the uniform experience in other countries in the world, and influenced by the desire to stem the tide of opinion in favor of so-called state insurance, the companies have quoted rates too low to carry even current requirements, while practically no systematized effort has been made, nor is perhaps possible, to set up proper reserves. Efforts have of course been made to secure co-operation amongst the companies and to prevent rate cutting but these efforts have apparently been on the whole unfruitful.

. . . . . .

"Workmen's compensation rates in Chicago are in a bad shape. Complaint is heard on every side. Some of the old offices with the largest volume of business are getting but few new risks in the city and it is said that in many cases they have had to get the risks they control specially rated down to the lowest point in order to hold them against competition. The conferences companies charge non-conference companies with rate cutting. The non-conference companies charge each other and the conference companies with the same practice. The brokers are hawking business about looking for the lowest rate, as in the old days before the adoption of the 1911 conference manual."

"Nobody seems ready to predict when better conditions will come. It has been suggested that when merit rating is introduced in Chicago by the Workmen's Compensation Service Bureau, there will be improvement.

"Meanwhile reports of examinations and admission of officers of prominent companies tell of heavy underwriting losses in the liability branch. The question naturally is being asked, Where are companies going to 'get off at' if this orgy of individual rates, cut rates and special rates continues?"

The same issue quotes a circular letter sent out by John T. Stone, President of the Maryland Casualty Company, containing the following:

"Repeatedly and in various ways during the past six months, the portentous condition of the liability insurance business has been plainly set forth. The great increase in losses and loss ratios, and the permanent nature of the causes thereof, indicating clearly the permanence of these heavy ratios, have been stated unreservedly, though in general terms."

The statement further shows that the company had lost $200,000 on its business for the first six months of 1913, and after notifying agents of a reduction in their rates of commission says:

"Our agents have made a good profit on this class of business every year, while for the entire fifteen years of our history the company has barely broken even on it, and is now losing heavily. They will therefore acquit us of 'squeezing' them for our own profit.

"We know, from the lips of chief executives of a number of our competitors, that our unprofitable experience as above stated is no worse than theirs."

. . . . . .

The *Market World and Chronicle* of August 2nd, in a review of a pamphlet on Workmen's Compensation Loss Reserve Legislation, by Mr. Frank E. Law, Vice-president of the Fidelity and Casualty Company, says:

"It is well known that one of the most perplexing questions with which the Comissioners have to deal at the present moment is this of the rule that should be followed in arriving at reserves for this business, which will not be found insufficient almost as soon as they are set up. At their meetings this subject is sure to occupy a large place in the discussions. And the managers of liability insurance companies are almost at much at sea as the Insurance Commissioners. Numerous and powerful social forces are at work to produce a progressive increase of the losses; the premium basis of this year is almost certain to be found inadequate before next year comes round; the total payments supposed to be required for this year's accidents prove to have been far from sufficiently estimated, long before the eight or ten years, over which the payments must be distributed, have run their course. All is fluctuating, incapable of exact calculation, and in only one respect certain, *i.e.*, in that the sum of the payments, when completed, will invariably be found to be far in excess of any figure thought possible at the time the insurance was written. Hence it has been and still is impossible to treat the problem as one capable of a purely theoretical solution once and for all."

This is precisely what was urged before the Ontario Commissioner on behalf of the employers of the province, but strenuously opposed by the representatives of the liability companies, and it was further pointed out that the difficulties of the libaility companies would be immensely increased where the payments covered not a period of eight or ten years, but a lifetime.

It is a relief to turn from the chaos of private liability insurance to the report of the first twenty-one months' operation of the system of the State of Washington. The report shows that while paying out compensation on the most generous scale of any system, perhaps, in the world and making more ample and methodical provision for reserves than is attempted in any private insurance company, the state system has charged employers rates from 50 to 75 per cent. lower than the liability companies' rates and conducted its business at an expense ratio of 8.2 per cent.

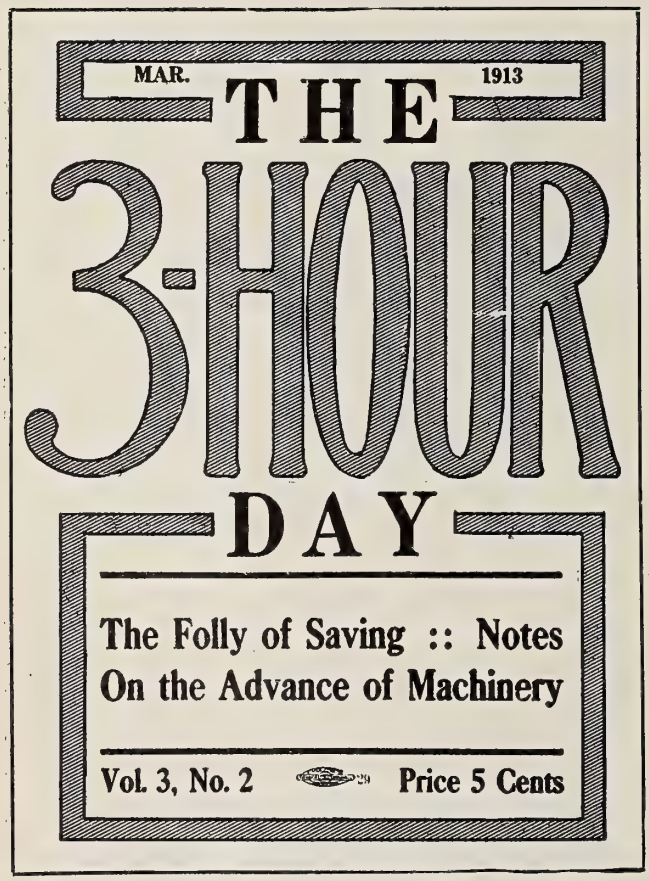
The State of California, after perhaps the most thorough and exhaustive study of the subject of Workmen's Compensation which has yet been made, has decided to adopt a state insurance system.

A MANUFACTURER CAN USE MY SKILL.

I want to be a Sales Manager or Assistant Manager, where I can organize, systematize and direct. I am now in the East. I have been thirteen years with my present employer. I worked for him in New York, Ontario, Quebec, and Montreal, on both the manufacturing and selling end. I am 29 years old, constructive, and a developer of business. Write me, especially if you are a Western manufacturer. C-o INDUSTRIAL CANADA.

FIRE PREVENTION.

Have you joined the Fire Prevention Association in your Province? Perhaps you have not one. Form one and join it.



Reproduction of the cover of a Pacific Coast Journal. The modest reduction in work hours, of course, contemplates no decrease in wages.
—American Industries

LA FAVORITE

INSTITUTION AND HOUSEHOLD
REFRIGERATORS

Made in eighteen different sizes and eight different styles.

Insulation— Perfect

Circulation— Direct and Positive

The Sussex Manufacturing Co., Limited
SUSSEX, N.B.

FOR SALE.

A 90 h.p. Bruce MacBeth Gas Engine, complete with 75 K.V.A. dynamo, switchboard and exciter. All in first class condition; in use less than four months; a bargain. The Winkley Company, Detroit, Mich.

IN RECEIVER'S HANDS.

Mr. Justice Astbury, in London, has made an order for the appointment of a receiver and manager for British Columbia Fisheries, Limited. It was mentioned that it was absolutely necessary to cable £5,000 to pay wages, and that a further £10,000 was necessary to deal with the present salmon pack.

TRINIDAD IS EXHIBITING.

Trinidad's permanent exhibition committee has decided to accept the offer of space allotted by the exhibition authorities of Toronto, and has despatched by the Pickford and Black steamer "Briardene" a selection of products.

ITALY'S COTTON.

The cotton industry of Italy has 4,575,000 spindles and 134,380 power looms, 24 per cent. in Piedmont, and the remainder in Venetia, Liguria, and, in lesser degree, in central and southern tIaly. The industry employs 207,312 operatives.

STATIONARY FIRE RANGERS



Forest fires are an annual misfortune despite the fact that hundreds of fire rangers are employed to prevent them. Fire rangers are **human.**

Hundreds of factories and other buildings are destroyed by fire every year in spite of the fact that every human agency is used to avoid them. Night watchmen are **human.**

Hundreds of fires in important plants are PREVENTED each year through the use of

Manufacturers Automatic Sprinklers

They are absolutely automatic and are within five feet of any place a fire could possibly start and drowns it before it gathers strength.

Manufacturers Sprinklers are Automatic

They are so efficient that insurance underwriters give a rate of insurance on Sprinkler Protected risks that is from 35 to 80 per cent. lower than ordinary risks.

Manufacturers Automatic Sprinklers pay for themselves in from 3 to 5 years, and give you absolute protection all the time.

The GENERAL FIRE EQUIPMENT CO., Limited

72 Queen Street East - - TORONTO

THE STORY OF AN ACCIDENT.

How a Bright Young Fellow Blighted His Chances in Life.

He was a bright young fellow and very quick to learn. He was a good student, but liked to play around with the other boys as well—part of the time. The balance of his spare time he passed by himself "making something." Even his own "Dad" said he was "the greatest tinkerer you ever saw, and was always fussing with some fool thing or other." And so it came to pass that his ambition to "make something" was realized when he entered a machine shop to learn the trade. He soon demonstrated his aptness and was accordingly advanced, and long before the regular time he was "over on the big lathe," doing the work with skill equal to some of the older ones.

His aptness and willingness earned him the chance to go out of the shop on outside jobs, and he mastered them with equal regularity. The outside jobs gave him an opportunity to learn the work in his line in the other departments, and when a vacancy occurred, he was the fortunate one in securing the place. Here he continued his mechanical ability demonstrations and willingness as before. Then one day as he was passing beneath an overhead crane he glanced up and was horrified to find that one of the keys was loose. It was almost "casting time" and the crane would be needed in a very short time, but if it were run with a loose key a serious "breakdown" would surely follow. He told himself that he would run up and fix it. It would only take a minute and then everything would be all right and no delay or breakdown would follow. Arriving at the place, he thrust back the guard over the ugly looking gears and reached in, to place the key properly before securely driving it into place.

And thus he stood, thinking only of the key! Had he any thoughts of his own safety?—No, not one! Had he looked for his foreman to tell him about the key in order that conditions over which he had no control himself might be made safe?—No, not even a glance! Had he told the crane operator that he was going on his crane to work, and not to start the crane until the work had been finished?—No, not a word! Had he pulled the safety switch on top of the bridge, to make it absolutely sure that no one could start the crane?—No, his only thought was the key! The casting hour was fast approaching and the crane operator entered his cab, threw in the switch and started the crane in order that he might be in readiness to handle the "heat." Then a terrible scream of agony pierced the building.

After months of untold pain and suffering, he was able to walk out a little in the beautiful sunshine, and his empty sleeve, dangled by the breeze, swayed at his side. The hopes and ambitions of his young life were lost forever! 'Tis awful—but true. Had he lacked enthusiasm? No—not about the little key, but he did lack safety enthusiasm! The remedy is so simple—so easy—just a little more time on the part of "hurry ups" (the Company's time, that they pay for), a little less hurry to get something done—a few words to the right person—a look ahead or behind, the being sure that neither you nor anyone else is in danger—that's all. Less time than it will take to make a report of the accident—just think of it—and a man's life saved in the bargain! Isn't that worth while?

Start in to-day to do the work the safe way, the good way, the brotherly way, and cut out the killing and the maiming business.

Try it—it will soon become a habit—a mighty fine habit.—*Safety Bulletin, Illinois Steel Co.*

Davidson & Smith will build a flour mill and elevator in Port Arthur.



PREVENTION OF FIRES.

Every Fire has its Lesson, but we Seldom Learn.

The following concise statements appear in the concluding sentences of reports on disastrous fires, compiled by the National Fire Prevention Association.

The protection of angle windows at fire sections is very important and frequently overlooked.

Fire occurred in a printing and book-binding establishment having ceilings of the double beam construction with small space between. The fire worked into this space and the automatic sprinklers could not extinguish it.

Fires at the centre of narrow, deep buildings, inaccessible except at the ends, are of a type extremely difficult to extinguish. Skylights, which are usually found near the centre of such buildings, add to the unfavorable conditions by allowing a premature vent for the fire at the most inaccessible point. Such buildings when not equipped with automatic sprinklers might be made somewhat safer by the introduction of a fireproof partition across the building near the centre.

Shingled roofs are a constant menace and should be abolished.

Unprotected steel construction has proved itself many times to be far inferior to average timber construction. Unless well protected in suitable manner to withstand the attack of fire, this type of construction invites disaster.

In every building two or more stairways, remotely located with respect to each other and enclosed in fireproof shafts, are essential for the escape of the occupants as well as for the work of the fire department.

Elevators should be enclosed in brick or reinforced concrete shaft, walls to pierce all floors and extend at least three feet above roof. Approved automatic fire doors to be installed on one side of wall at all doorways to building.

Properly installed hand hose connections on sprinkler equipments in specially hazardous locations have proved very desirable and frequently prevent an undue water loss by extinguishing the fire before the automatic sprinklers operate.

The use of standard shutters and fire doors is one of the important adjuncts of good fire protection to-day.

Basement windows should be provided with permanently located heavy screens to guard against this ever present hazard.

Fire very clearly indicated the necessity of confining all oily rags and waste in standard metal waste cans, for if they had been so kept in this case, the fire would in all probability have been confined to the metal can and would not have opened a sprinkler head.

Ventilating fans should be stopped at once upon an alarm of fire.

THE WORST ENEMIES OF RUBBER ARE HEAT AND OIL.

Manufacturers of Automobile Tires realize these points most keenly. The Goodyear people say a properly balanced Tire will not heat. Experiments in making very thick, heavy tread tires have shown that the resulting heat generated breaks the tires down very quickly, especially on the side walls. Once a tire has a badly broken down side wall there are slight chances of properly repairing it to give any length of service. As for oil, it is pointed out that leaving a car standing on an oily floor is one of the quickest ways of rotting the tires. If the Motor Car Owner wishes to get the best service out of his tires he must keep his garage floor clean and quickly wipe off the tires any oil that may get on them through accident.

TRAINING WOMEN TO ESCAPE FIRE

By SARAH W. H. CHRISTOPHER

In the Michigan Manufacturer and Financial Record

I AM now the fire chief to 15,000 girls in 150 factories of Greater New York. I might say I have charge of all the factories of the Cotton Garment Manufacturers Association, and my work is almost entirely among women.

In the factories my power is almost absolute. When I enter one, always unannounced, I sound the fire alarm and instantly all work must be laid aside. I put the employees and employers—the latter frequently need it as much as the workers—through various fire drills, those which I think best adapted to the needs of that especial factory.

I am deeply interested in my occupation and intend to make it a life work. I have found a field in which the most ambitious might toil. The object is the prevention of such disasters as the dreadful Triangle fire.

E. E. Tiche, president of the Cotton Garment Manufacturers Association, gave me the position of fire chief of the association a few weeks ago. I had been working under Fire Commissioner Johnson for some months as the only woman inspector of the fire prevention bureau. Even before I took hold of this work I had been investigating for myself for several months and my experience as an operative in a great shop was only one of the many means I took to find out just what the real conditions were.

The first place I inspected after taking hold of my present job was an old six-storey building on the lower East side. It was a typical sweatshop. The building itself was a veritable fire trap. About 1,200 persons were employed in the building, most of them being women. On the second floor was a paint shop, where a fire might easily start. The other floors were occupied by clothing manufacturers.

There were no fire extinguishers. I found a few pails with no water in them. The floors were crowded with machines so close together that the women almost touched each other as they worked. The aisles were practically blocked up with goods and almost the entire floor in the work room was covered with highly inflammable cloth. The pressing tables with the old-fashioned heating stoves for the irons touched the wooden partitions. The stoves in many cases were red hot and absolutely unprotected.

I found that many of the doors opened inward, that the stairs were narrow and in some cases blocked up with boxes and goods.

The next building I visited was a twenty-story factory, and the conditions were quite different from what I had seen in the first place. The building was equipped with modern standpipes and sprinkler system. The employees had a fire drill, which was perfect. Conditions there could not have been better.

The fire drills are conducted with one object in view—to provide for a quick and orderly vacation of the building in the shortest possible time in case of emergency. The drills I am teaching include the organization of the employees into squads, for each of which is designated a special way out of the building. I am organizing fire-fighting squads among the men employees, teaching them how to handle the fire extinguishers and the hose and how to manage the sprinkler system.

Certain employees are detailed to take their posts at the head and foot of the stairs to keep the lines moving orderly. The workers are instructed that at the first alarm they must hold themselves in readiness to obey the instructions of the forewoman. Under her direction the work is removed from the aisles and the employees form a double line. Then they are marched out.

Any building under these conditions can be emptied in a few minutes. There is no panic. The drills are so easily learned that after they are repeated a couple of times the workers know just what to do and in case of fire would probably be out of the building before they knew whether there was really a fire or only a drill.

I believe that the methods which I am using to save the lives of New York factory girls in case of fire will be so practical that they will be very generally adopted elsewhere. By teaching the factory girls methods of fire prevention I think they can use their knowledge to such good advantage at home that many of the fires in dwellings can be prevented.

From statements made by over a hundred women I have found that only ten know of any other way to escape from a burning apartment than by the stairs or the fire escapes. They had never thought of the roof, or if they had they had never studied it. When a woman finds her way cut off from both the fire escape and the stairway she becomes panic stricken and rushes to a window and perhaps throws herself to the street. Every mother and wife should see that the members of their family know all there is to know about the way of escape, and should institute a little fire drill of her own. It is as much her duty to teach the children what to do in case of fire as it is to keep them properly fed and clothed. The school teacher must drill the child in her schoolroom; why not the mother in her home?

I feel that the education of the housewife along these lines will do more to lower the rate of fires in the homes than any laws.

HEALTH CONVENTION AT REGINA.

The third annual Congress of the Canadian Public Health Association will be held in Regina on Thusday, Friday and Saturday, September 18, 19 and 20, instead of 16, 17 and 18, as previously announced. The programme of papers promises to be an exceptionally attractive one, and the Provincial Government and the city of Regina are co-operating in plans for the entertainment of the delegates.

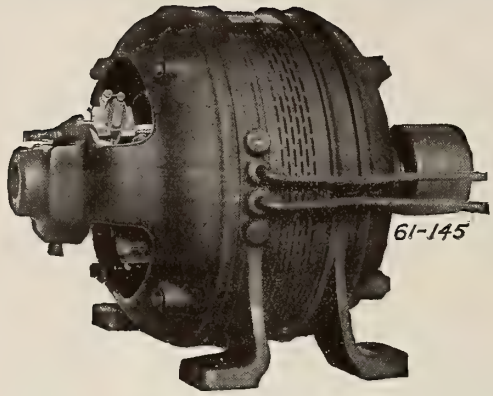
BRICK PAVERS' ASSOCIATION.

The National Paving Brick Manufacturers' Association will hold its tenth annual meeting at Cleveland, Ohio, on September 17 and 18. This is the first summer convention the association has held, the former custom of holding winter meetings having recently been altered to afford opportunity for investigating actual work on brick street and road construction. Officers of the National Paving Brick Manufacturers' Association are:—Charles J. Deckman, Cleveland, President; Will P. Blair, Cleveland, Secretary.

NEW CATALOGUES AND BOOKLETS.

Barber-Ellis, Ltd., have issued a most attractive booklet descriptive of their offices throughout Canada, and of the works at Brantford.

The Nicholson File Company have just published a booklet called "File Philosophy," which deals with the proper use of files.



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THE NEED FOR FIRE MARSHALS.

Fire has caused serious havoc in every part of the country during the first two weeks of August. Incendiary fires have been frequent. One incendiary has confessed to his guilt. Others have escaped because it is everybody's, and therefore nobody's, business to investigate the causes of fires.

Every day the need of a Government fire marshal for each province becomes more emphasized. Manitoba and Saskatchewan have such officials, and the other Western Provinces will shortly follow, because the West has a keen appreciation of speedy enterprise, but Ontario lags behind.

Many alarming fires have occurred in Ontario already this month, and as suspicion is excited as to the causes of several, a Government fire marshal should be on the spot to investigate. The necessity of the appointment of such an official is so obvious that it is difficult to see why the Ontario Government does not make a quick move in the matter instead of giving the proposal the usual lengthy, official cooling process, before taking any action.

The monthly record of Canada's fire waste, compiled by *The Monetary Times*, shows that since January the losses have aggregated nearly $17,000,000, as compared with $22,900,000 for the whole of 1912. The July fire waste was $2,614,198. The reduction of fire losses is an important work and the appointment of Government fire marshals will be valuable assistance in that work.—*Monetary Times.*

LESS INDUSTRIAL UNREST THAN DURING LAST YEAR.

According to the record maintained by the Department of Labour industrial conditions showed an improvement in regard to labor disputes during July. There were 24 in existence, as compared with 27 during the previous month. A still greater improvement is seen when the comparison is made between the present month and the corresponding period of last year, when there were 46 strikes and lock-outs existing in the Dominion. During July, 1913, about 152 firms and 8,000 employees were involved in strikes and lock-outs as compared with 450 firms and 11,957 employees affected by trade disputes during the previous month. There was a slight increase in the loss of time to employees, about 188,000 working days being lost, as compared with approximately 181,000 during June. It may be mentioned that during July, 1912, upwards of 270,000 working days were lost from this cause. Two disputes of importance occurred during July, while of those that were in existence previous to this month, the most important as affecting industrial conditions were those of coal miners on Vancouver Island and sawmill hands at St. John, N.B. These two disputes together accounted for a loss of upwards of 130,000 working days.

ILLUMINATING ENGINEERING SOCIETY.

A meeting of the General Convention Committee of the Illuminating Engineering Society was held in the rooms of the Society, in the Engineering Building, New York City, Thursday, Aug. 14th, to complete all arrangements for the Seventh Annual Convention to be held at Hotel Schenley, Pittsburg, September 22nd to 26th.

The gold medal at the Winnipeg field contests was won by the Sawyer-Massey Co., Ltd., of Hamilton, in competition with United States manufacturers.

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of August, 1913.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload lots: L.C.L., less than carload lots.)

Canadian Pacific Railway.

C.R.C.	R.R.No.	Effective.	Description.
Sup. 20 E 2141	Sup. 20 E 1737		Stop-over and special arrangements at C. P. stations. Re-issue. Advance.
Sup. 21 E 2141	Sup. 21 E 1737	July 28-13	Do. Do. Reduction.
Sup. 9 E 1654	Sup. 9 E 1241	Aug. 26-13	Class rates C. P. stations to Buffalo, Black Rock, and Suspension Bridge. Reduction.
Sup. 22 E 2141	Sup. 22 E 1737	July 28-13	Reshipping, stop off, and special arrangements. Reduction.
Sup. 23 E 2141	Sup. 23 E 1737	Aug. 1-13	Do. Do. Reduction.
Sup. 43 E 2492	Sup. 43 E 2092	Aug. 7-13	Commodities between C. P. stations. Reduction.
Sup. 44 E 2492	Sup. 44 E 2092	Aug. 8-13	Commodities between various points. Reduction.

Grand Trunk Railway.

E 2758	C.U. 75	Sep. 1-13	Commodities from Buffalo, Black Rock and Suspension Bridge, N.Y., to points in Canada. Advance. Reduction.
Sup. 4 E 2684	Sup. 4 C.U. 72	Sep. 2-13	Commodities between G. T. stations and from and to connecting lines. Reduction.
Sup. 9 E 2457	Sup. 9 S 86	Sep. 1-13	Interswitching at G. T. stations. Advance. Reduction.
Sup. 14 E 2374	Sup. 14 C.R.111	Aug. 1-13	Re-shipping, stop-off and special arrangements. Suspension.

Canadian Northern Railway.

Sup. 8 B.Q. 369	Sup. 8 E.Q. 119	July 29-13.	Pig Iron, C. L. Deseronto to points in N.S. and to Montmagny, P.Q.

Michigan Central Railroad.

2049 cancels 1767	9353 cancels 8803	Aug. 16-13	Commodities between M. C. stations in Canada also to points in connecting lines. Reduction.
Sup. 37 1549	Sup. 53 8264	Sep. 1-13	Switching and absorption of switching. Advance. Reduction

Baltimore and Ohio Railroad.

Sup. 16 851	—— ——	Sep. 1-13	Billets, Pig iron, etc., B. & O. stations to points in Canada. Advance. Reduction.
1108 cancels 1046	—— —— ——	Sept. 1-13	Commodities B. & O. stations to points in Canada.

Pennsylvania Railroad.

G.O. 573 cancels G.O. 439	—— —— ——	Sep. 1-13	Classes P. R. R. stations to Montreal and other points in Quebec

AGENCIES WANTED.

Advertiser, who is a shipper and export agent in Canada for all kinds of Canadian grain, produce, provisions and sundry bi-products, will visit principal ports of the United Kingdom, Holland, Denmark, Norway and Sweden in September and early October. Will be glad to meet importers of all such articles. Address "Canadian," care of Acting Trade Commissioner, 87 Union St., Glasgow, Scotland.



WANTS MANUFACTURES

THE remarkable growth of the cities, towns and agricultural districts in Western Canada has created an UNPRECEDENTED DEMAND for Industries of ALL KINDS. Winnipeg wants Additional Factories, and offers the best labor market in Canada. Electric Power and Light from 50,000 municipal plant at cost, cheap sites, low taxation and best distributing facilities in all Canada.

THIS IS YOUR OPPORTUNITY
RIGHT NOW IS THE TIME
WINNIPEG IS THE PLACE

Reports furnished free on the manufacturing possibilities of any line of industry.

Write CHAS. F. ROWLAND,
Commissioner, Winnipeg, Canada

A STRONG JET.

A factory in Grenoble, France utilizes the water of a reservoir situated in the mountains at a height of 200 yards. The water reaches the factory through a vertical tube of the same length, with a diameter of considerably less than an inch, the jet being used to move a turbine. Experiments have shown that the strongest men cannot cut the jet with the best-tempered sword; and in some instances the blade has been broken into fragments without deflecting a drop of water, and with as much violence as a pane of glass may be shattered by a blow from an iron bar. It has been calculated that a jet of water a small fraction of an inch in thickness, moving with sufficient velocity, could not be cut by a rifle bullet.—*Canadian Engineer.*

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With them you can beautify unsightly parts of your plant, and thus promote neatness in your help.

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Get our prices and see our designs.

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Sheet, Ingot, Rod, Wire, Tubing, Rivets, Extruded Shapes, Bronze Powder and Fabricated articles.

We solicit your enquiries and will be glad to serve you. Our experience and knowledge of the metal will be of value to you.

Write Us

NORTHERN ALUMINUM CO., LIMITED

FIRE PREVENTION EDUCATION.

Important Committee is formed, in which the C.M.A. is represented.

The formation of the new committee on public information of the National Fire Protection Association, of which Secretary Franklin H. Wentworth, of Boston, is to be the permanent chairman, is now completed.

It is gratifying to notice that the Canadian Manufacturers Association is represented on such an important committee.

Widely diversified interests are represented, the following members of the association having accepted service: D. Knickerbacker Boyd, Philadelphia, Chairman of the committee on public information, American Institute of Architects; Powell Evans, Philadelphia, representing the National Hardware Association of the United States; E. P. Heaton, Toronto, manager insurance department, Canadian Manufacturers Association; Chas. E. Meek, New York, vice-president, National Association of Credit Men; Richard L. Humphrey, Philadelphia, president, American Concrete Institute; Oscar B. Ryon, Chicago, general counsel, National Board of Fire Underwriters; James McFall, Roanoke, Va., secretary, International Association of Fire Engineers; Charles A. Ellison, Fire Marshal, Charleston, W. Va., representing the Fire Marshal Association of North America; W. E. Mallalieu, New York, general manager, National Board of Fire Underwriters; C. M. Goddard, Boston, secretary, New England Insurance Exchange; Thomas R. Weddell, Chicago, secretary of the committee on publicity and education of the Union; Edwin Clark, Philadelphia, chief of Bureau of Building Inspection; Rudolph P. Miller, New York, City Department of Buildings; J. S. Darst, Insurance Commissioner of West Virginia, National Convention of Insurance Commissioners; Lewis T. Bryant, Commissioner of Labor, State of New Jersey; W. H. Merrill, Chicago, manager, Underwriters' Laboratories, Inc.; Herbert M. Wilson, Pittsburg, engineer-in-charge, Bureau of Mines, United States; S. W. Stratton, Washington, director, Bureau of Standards, United States.

In accordance with authority given by last annual meeting, the powers of this committee are:

1. To organize state and municipal sub-committees and provide for the support thereof.
2. To encourage legislation for the enforcement of fire protection standards and inspection and good housekeeping conditions.
3. To agitate for the continuous and regular enforcement of such legislation when passed.
4. To take such other steps to further the ends of education, legislation and its enforcement for the protection of life and property against loss by fire as the Committee may deem wise.

PRICES DECLINE SLIGHTLY.

The Department's index number of wholesale prices stood at 135.9 for July, as compared with 136.9 in June, and 134.1 in July, 1912. The numbers are percentages of the price level during the decade 1890-1899. The chief advances occurred in grains and fodder, hogs and hog products, flour, oatmeal, wool, cotton and raw silk, with a decline in sheep, mutton, lambs, bananas, tin, metals, liquors, tobacco and sundries. Horsehides and tallow were higher, but cattle and beef were somewhat lower. Retail prices were comparatively steady during July. Eggs and hog products advanced, while butter showed a general decline.

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

776. **Agent.**—A Hamburg agent advises that he is interested in the importation of fish guano, tinned lobsters, evaporated apples, pigskins, asbestos, and states that he has large openings for these goods in Europe and elsewhere.

777. **Timber.** A Cannock firm asks for quotations for the following delivered at works: 3 in. by 5 in., 6 in., 7 in., 8 in., 9 in., 10 in. and 11 in. spruce, March boards, various sizes; red deals, slating lathes, etc.

778. **Timber.** A Coventry firm is open to purchase deals, battens, boards in the rough for building purposes. Also doors, door frames, sashes and frames and general joinery.

779. **Beer Residue, malt and bran.**—An inquiry has been received at this office from a firm in Mainz, Germany, for the above. Correspondence solicited.

780. **Wood Veneers.**—A firm in Frankfurt, Germany, wishes to open up correspondence with Canadian exporters.

781. **Washboards, Clothes Pins and Indurated Fibre Ware.**—A firm in Amsterdam is prepared to purchase c.i.f. Amsterdam. Good references.

782. **Wood Pulp.**—A London company who claims a large connection among buyers, are desirous of securing the agency of Canadian manufacturers of sulphite and mechanical wood pulp.

783. **Brewer's and Malthouse Waste, Brewer's Grains and Malt Culms.**—A large wholesale house in Germany is in the market to import if prices are right.

784. **Brewer's and Distiller's Grains, Malt Culms, Feed Barley, Maize Cake Meal.**—An importing house in Mannheim, Germany, wishes quotations with samples c.i.f. Rotterdam. Is prepared to take from 30 to 50 tons as trial shipment.

785. **Canadian Specialties and Novelties.**—An important Hamburg firm handling exclusively English and American specialties, novelties and "notions" on the largest scale desires to hear from Canadian manufacturers of similar articles for placing on the markets of the various countries of Europe, which a large staff of travellers constantly visit throughout the year.

786. **Hair, Animal.**—A firm of felt manufacturers in Belgium wishes to buy from Canada any kind of animal hair, the waste of the tanning and leather dressing industries. They are prepared to buy on production of samples, and to pay cash against documents.

787. **Lumber.**—Canadian exporters of lumber are invited to correspond with Havana dealer.

788. **Iron and Steel Bars.**—A Havana firm is anxious to get in touch with Canadian manufacturers of iron and steel bars.

789. **Cement.**—A firm in Havana is anxious to correspond with Canadian manufacturers of cement.

790. **Condensed Milk.**—Canadian manufacturers of condensed milk desirous to appoint a representative in Cuba are invited to correspond with a good firm of commission merchants in Havana. Must be willing to share expense of advertisement.

791. **Asbestos Packing.**—A Durban firm of merchants request correspondence with manufacturers of packing composition suitable for engine and hydraulic machinery, boilers and pipes. If this firm find satisfactory article, will purchase direct instead of handling on commission.

792. **Agricultural Machinery.**—A Natal firm with connections throughout South Africa, would take up lines of agricultural machinery on commission or purchase outright, as preferred; the only line not open for contract or purchase is cream operators.

793. **Broom Handles.**—A firm of wholesale merchants want to buy direct from manufacturers of broom handles, and request quotations on maple broom handles, standard sizes 1⅛-1¼ inches, 48 inches long.

794. **Brewers' Distillery Grains, Oil Cakes, Bran, etc.**—A house in Germany wishes to enter into correspondence with Canadian exporters.

AMONG THE INDUSTRIES

Winnipeg capitalists, associated with Eastern manufacturers, have purchased the plant and business of the Port Arthur Wagon Company, Port Arthur. The new company has a capitalization of $500,000, and will be known as the Port Arthur Wagon & Implement Co., Ltd. His Honor Lieutenant-Governor Cameron of Manitoba is President of the concern, and Sir Wm. Whyte, Vice-President. The plant has a manufacturing capacity of 12,000 wagons and 5,000 sleighs a year.

The Fort William Brass Foundry, which burned recently, has been reorganized under the name of the Varlow Foundry Co., Ltd.

Dr. Ernest Holmes has let the contract to the Frid-Lewis Contracting Co. for the construction of a six-storey office building at Saskatoon, to cost about $250,000.

The paint factory of the Great West Iron, Wood & Chemical Co., established in Prince Albert, is now in full operation with a plant capable of turning out 1,000 gallons of finished products per day. The factory is a four-storey building 100 feet by 150 feet, with a floor space of 20,000 square feet. The motive power is electric and the slip ring motors, which automatically shut off when overloaded, have been supplied by the Lancashire Dynamo & Motor Co., of Manchester. The 225 horsepower is so distributed and arranged that each floor can work separately. The combined use of pump power and the force of gravity has been carefully studied, and the plant is so constructed that the raw ingredients have only to be handled once.

Lethbridge expects to have a macaroni factory turning out that toothsome delicacy in the near future. The manufacturers state that not only are shipping facilities favorable, but that the wheat of the district is admirably suited to their purpose.

At a meeting of the Lethbridge Board of Trade recently, Joseph P. Tracy urged the city to secure wholesale houses as well as factories, in order to make it a distributing centre and a business metropolis.

If It Pays Others, It Should Pay You To Use Our Oxy-Acetylene Plants

See if you cannot improve your process of manufacturing and decrease your maintenance cost by using

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of metals and cutting of iron and steel in any form or shape.

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High Class Lithographers and Designers of

CALENDARS SHOW CARDS

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ADVERTISING PLAYING CARDS

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ONTARIO STREET & PAPINEAU AVENUE

MONTREAL, CANADA

The "X" Tenn Manufacturing Co. has been organized at Regina with a capital of $150,000, and will manufacture grain drying bins.

C. W. Sherwood, who is putting up a big departmental store building in Regina, says that it will cost in the neighborhood of $1,000,000.

Geo. H. Highly, the manager of the new flax mill being erected at Moose Jaw, says that no time will be lost in getting the plant ready for operation. Construction work is starting right away. There will be an elevator system with steel elevator units, each with a capacity of 60,000 bushels.

A report from Battleford says that a arge clay brink plant is to be established there in the near future, the company having signed an agreement to employ a minimum of twenty men. The capacity of the plant will be from 50,000 to 75,000 bricks per day.

The cold storage at Vegreville, Alta., under the title of the Province Produce Co., having closed its year, reports that business has been far in excess of expectations.

The J. H. Tabor Manufacturing Company, capitalized at $150,000, has signed an agreement with the Medicine Hat Council to establish a candy making plant there. The factory will emplay twenty-five hands at the start. The company secures a free site and free natural gas for five years.

Inndustrial Commissioner Moffatt, of Macleod, has received communications from men who are desirous of investigating the possibilities here for a linen factory and for a cement block plant.

The Hardstone Brick Co. are installing additional machines at Edmonton so as to give the plant a daily capacity of 60,000 bricks. The British-American Paint Co., Victoria, B.C., is erecting a branch factory in Edmonton at a cost of $20,000.

The Dominion Bridge Company have begun work on the superstructure of the new St. John sugar refinery. The steel superstructure is also being placed on the new C.P.R. grain elevator at West St. John, where the C.P.R. is also preparing to lay ten additional tracks to accommodate its cars.

The Partington Pulp & Paper Company have enlarged their plant at St. John, N.B., and will materially increase the amount of pulp manufactured.

Fraser's, Limited, of Fredericton, will start a new saw mill there on August 1st, employing a hundred men. It is worthy of note that the Mann Axe & Tool Company, of St. Stephen, have just shipped two carloads of axes to Western Canada.

Several announcements of interest in connection with industrial matters have lately been made. The Oil Motor & Manufacturing Co., Limited, is erecting a factory at St. John and will manufacture oil engines for local and export trade. The company which is establishing a shoe factory at St. Stephen has called for tenders for the erection of the factory. The Maritime Oil Fields, Limited, which has four drilling outfits at work in Albert county, and is operating there on a larger scale than ever, is placing a fifth outfit at Sussex, which is forty-five miles from St. John, and it is confidently believed natural gas will be struck at that place. At Scotch Settlement, near the Central Railway in King's county, large deposits of copper ore have been uncovered, and it is claimed that the ore is very valuable. G. W. Ganong, M.P., of Ganong Bros., Limited, is largely interested in the project, and shipments of the ore will shortly be made to Jersey City for experimental purposes.

Kasimir Kocot has purchased the Regina brewery, and intends to spend $135,000 on improvements and additions.

Watson, Limited, intend to build a factory at Bradford, Ont.

J. A. Marven, Ltd., will build a biscuit factory in Moncton, N.B.

The Wilson Carbon Co., Ltd., contemplate building a factory in Montreal.

The Bank of British North America will erect a building in Victoria, B.C.

An ice plant, costing $200,000, is planned by the Crystal Ice Co. in Calgary.

J. H. Dunlop is building a $50,000 greenhouse at Richmond Hill, Ont.

The C. N. W. Shoe Co., London, Ont., contemplate building a factory in Orillia, Ont.

The Fife Hardware Company are building a $35,000 warehouse at Fort William, Ont.

John H. Taber, *et al*, will build a candy factory, costing $25,000, in Medicine Hat, Alta.

A wholesale grocery and warehouse, costing $45,000, will be built in Montreal by P. Adelstein.

A factory, costing $40,000, will be erected in St. Catharines, Ont., by the Armstrong Cork Co., Pittsburg.

The Tribune Publishing Co. are building a $173,000 addition to their publishing plant in Winnipeg.

The Metals Extraction, Ltd., have formed a company, authorized capital $100,000, and will build a factory in Montreal.

The City Council of Calgary and the united farmers of Alberta are considering the advisability of locating a packing industry and stock farm at Calgary.

The capital stock of Babson Brothers of Canada, Limited, has been increased from $10,000 to $50,000, by the issue of 400 shares of new stock of $100 each.

The capital stock of the Finger Lumber Company, Limited, has been increased from $300,000 to $1,000,000, such increase to consist of 7,000 shares of $100 each.

The capital stock of the Anglo-Canadian Leather Company, Limited, has been increased from $2,000,000 to $5,000,000, such increase to consist of 30,000 shares of $100 each.

The capital stock of the Brockville Lumber Company, Limited, has been increased from $75,000 to $200,000 by the creation of 1,250 shares of new stock of $100 each, of which 1,000 shares shall be preference shares.

The capital stock of West Canada Publishing Company, Limited, has been increased from $40,000 to $200,000, by the issue of 16,000 shares of $10 each, the original capital of $40,000 being subdivided into 4,000 shares of $10 each.

Puddy Bros. are building a $45,000 addition to their packing house in Toronto.

The C. N. W. Shoe Co., of London, Ont., propose to build a factory in Orillia, Ont.

The Dominion Canning Company are re-building their factory in St. Catharines, Ont.

G. Carter and Son are installing additional equipment in their flour mill at St. Mary's, Ont.

The name of Douglas Brenton, Limited, has been changed to the Albert J. Brenton Company, Limited.

The Vogel Company, of Canada, Limited, has changed its name to the H. G. Vogel Company (Canada), Limited.

The Eaton Cigar Company, Limited, has re-divided the capital stock of the company into 400 shares of $100 each.

The R. and F. Manufacturing Company, Limited, has changed its name to the Rogers-Frankfort Company, Limited.

The capital stock of M. Rawlinson, Limited, has been increased from $150,000 to $190,000 by the creation of 400 shares of new stock of $100 each.

The capital stock of the Imperial News Company, Limited, has been increased from $40,000 to $100,000, by the creation of 60,000 shares of new stock of $1 each.

The capital stock of the Metcalfe Rural Telephone Company, Limited, has been increased from $10,000 to $20,000, by the creation of 2,000 shares of new stock of $5 each.

The capital stock of the North American Smelting Company, Limited, has been increased from $500,000 to $1,000,000 by the creation of 5,000 shares of new stock at $100 each.

The Canadian Publications, Limited, has changed its name to the Hart Press, Limited, and the capital stock of 5,000 shares of $10 each has been consolidated into 500 shares of $100 each.

The Monetary Times is now making its second investigation of the amount of United States capital invested in Canada, in branch factories and otherwise. The first inquiry ever conducted on this subject was undertaken by *The Monetary Times* in 1909. That journal will be glad to receive information on the matter.

The Sawyer-Massey Co., Ltd., of Hamilton, have just sent a shipment of thirteen carloads of engines, threshing machines and gas tractors to the Argentine Republic. The Company state their belief that this is the first consignment of engines and threshing machines which has left Canada for foreign countries.

The Andrews Lumber Company, Limited, has recently been incorporated with head office at Sault Ste. Marie, Ont., and capital stock of $150,000. Among those interested are J. R. Andrews and H. R. Andrews, Escanaba, Mich., and John A. McGuire, Ford River, Mich. The objects of the incorporation are to carry on business as lumber merchants and sawmill proprietors.

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Zeta & Johnston, planing mill operators, Fort Frances, have been succeeded by the Fort Frances Sash and Door Factory.

The Vancouver Log Company, Limited, has been incorporated with a capital of $25,000 and head office at Vancouver, B.C.

The Empire Lumber Company has commenced active operations in the development of its large timber holdings in the Cowichan Lake district on Vancouver Island, B.C. The company intends to erect a large sawmill at Crofton.

West & Jackson, Tillsonburg, Ont., are considering the erection of a sawmill at Englehart, Ont. They report that they will be pleased to receive catalogues of machinery and equipment or supplies, also flooring, maple or mixed hardwoods.

During the year 1912, 20,275,120 tons of shipping passed through the Suez Canal, an increase of 2,000,000 over 1911. The total receipts were the greatest in the history of the canal and totalled $27,300,000. During the year, 5,373 ships passed through, of which 3,335 carried the British flag.

N. Sarrasin & Fils, sash and door manufacturers, whose mill was recently destroyed by fire, have decided to rebuild on the old site at 228 Duvernay Street, Montreal. The new structure will cost about $25,000, and will be 80 by 100 feet. A sprinkler system will be installed.

The Bay of Quinte Wood Company, Limited, has been incorporated with a capital of $500,000, to manufacture and deal in timber, lumber and wood of all kinds, with head office at Toronto. The provisional directors are C. E. Bailey, lumberman, A. M. Donovan, barrister, and W. F. Greig, law student, all of Toronto.

It is reported that the Big River Lumber Company, Big River, Sask., whose large new mill was destroyed by fire on June 14th, will build a number of smaller mills at different points throughout their timber berths instead of building another large mill. No information on the point has yet been given out by the company, however.

The Northern Veneer Company, Limited, has been incorporated with a capital of $200,000, to manufacture and deal in timber, wood, lumber, shingles, woodworking machines and builders' supplies, with head office at Grimsby, Ont. The provisional directors are T. C. Haslett, W. F. McGiverin, and R. C. Ripley, accountants, all of Hamilton, Ont.

The Department of Lands, Forests and Mines has received a tender for damaged timber in Gooderham Township, of the Temiskaming district, along the line of the T. & N. O. Railway. The tender is for $14.40 per thousand feet, with $2 per thousand for dues, thus totalling $16.40 per thousand feet board measure. All the timber is standing.

The directors of the Spanish River Company recently completed arrangements for taking over the plant and property of the Lake Superior Company, and added the following four gentlemen to the directorate to represent the Lake Superior interests as agreed in the amalgamation: W. K. Whigham, of Robert Fleming & Company, London, England; J. Frater Taylor, vice-president of the Lake Superior Corporation, Sault Ste. Marie; W. E. Stavert, Canadian Agency Limited, Montreal; F. S. Szarvasy, managing director, British, Foreign and Colonial Corporation, London, England.

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To use an **Eddy Paper Towel** to advantage, place it gently on the face or hands and it will immediately absorb all moisture.

These Towels are finely crimped for this purpose and because no rubbing is necessary they protect theskin against irritation.

Use an **Eddy Paper Towel** once and throw it away. This assures a clean, dry wipe with no chance whatever of contamination.

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Eddy's Sanitary Towels are put up in rolls, each roll containing 500 towels, sized 14 x 15.

They are also put up in sheets, in envelopes, of 25 or 50 in each parcel, sizes 7 x 7½, 14 x 7½.

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450 BARTON ST. EAST

Hamilton :: :: :: Ontario

The Richford Lumber Company, Sutton, P.Q., has secured provincial registration.

Church & Church, Limited, lumber dealers, Montreal, have secured provincial registration.

Goulet, Premont and Premont, Chateau Richer, P.Q., lumber dealers, are reported to have dissolved their partnership.

F. Pouliat's sawmill at St. Captan D'Armagh, P.Q., was destroyed by fire recently, the loss amounting to $7,000. The mill will be rebuilt.

The sash and blind factory belonging to Albert M. Wener, on Papineau Avenue, Montreal, was recently destroyed by fire. The loss amounts to $7,000.

Plans are being prepared for a warehouse on Durocher Street, Outremont, P.Q., for the Seaman, Kent Company, Limited, manufacturers of hardwood flooring, who now have premises on the same street. The building, of two storeys, will be on a site 185 by 100, and will be constructed of concrete and brick. The floors will be of hardwood. The warehouse is to be so built as to be capable of being turned into a factory at a later date, and will cost about $22,000. The C. P. R. are building a spur line for the accommodation of the company.

To finance the new power development at Grand-Mere, P.Q., the dam and power house for which is being built by Mr. F. H. Talbot, the Laurentide Company have issued $2,400,000 of stock at par to the shareholders. Shareholders had the right to subscribe for one share for every three shares held. The authorized capital is $10,000,000, and the new issue brings the subscribed capital to within $400,000 of that amount. The company own 2,200 square miles of timber limits, and draw supplies from another 5,000 square miles. A considerable portion of the electrical power which will be generated will be sold.

The Belgo-Canadian Pulp & Paper Company, Limited, of Shawinigan Falls, P.Q., have decided to erect a sulphite mill having a capacity of fifty tons per twenty-four hours, with necessary buildings so as to permit of an extension of output to one hundred tons every twenty-four hours. The mill will be erected adjacent to the existing ground wood and newspaper mills, and will not be in operation before August, 1914. The ground wood mill is now being enlarged and work will be completed about December. The company are also planning an extension to the paper mill, which will be completed about the end of next year.

A BRACE OF PROVERBS.

Hustle is minute-wise and hour foolish.

The man who is willing to steal for his employer will steal from him.

All are Workmen.

Some men think they are bright when they are really only shiny.

Some men spend too much time being busy.—*John Nicholas Beffel.*

Walk Warily.

INDUSTRIAL CANADA

ISSUED BY

The CANADIAN MANUFACTURERS ASSOCIATION.

INCORPORATED.

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The Halifax Convention.

THE annual convention of the Canadian Manufacturers Association, held this year in the old city of Halifax, came at a time when it was most likely to attract the attention of the country. The recent financial stringency, our record-breaking immigration, the activity of railway construction, the pressing problems of transportation, our wonderful industrial expansion and many other important matters, most of which still await settlement, inclined the attention of the people of Canada to the convention in the hope that it would either formulate or suggest solutions. The people were not disappointed. Not only were the presidential address and reports rich with suggestions, but the discussions at the sessions and the more intimate and prolonged conversations of the trip indicated that some of the best brains in the country are actively engaged in working out solutions for our great national problems. It is safe to say that the convention was a great success, reviewing, as it did, a remarkable year of progress. It is also true that it will be a storehouse from which to draw for ideas and guidance during the coming year.

Safety Appliances a Necessity.

IN Europe and North America the study and application of safety appliances is steadily increasing. There is probably not one manufacturer in the world who deliberately wants to maim or kill his employees. Such an employer would not only be cruel but also unpractical. When an employee is killed or hurt, the employer loses his skill, his labor, and the damages paid to him or his family.

Employees have been hurt and killed in factories sometimes because of the neglect or unwillingness of the employer to furnish proper equipment, sometimes because of the carelessness of employees in observing rules, but most frequently because neither employer nor employee knew much about safety appliances.

With the study of accident prevention came a quickening interest in safety appliances, and now employees rival employers in perfecting equipment which will save lives, limbs and money.

In order to keep abreast of this movement INDUSTRIAL CANADA will establish a "Safety Department," which will be devoted to this subject. Manufacturers who have introduced safety systems into their factories are cordially invited to communicate with INDUSTRIAL CANADA, and to give others the benefit of their experience.

The Canadian National Exhibition.

AFTER years of successful achievement, the Canadian National Exhibition made a record this year by attracting within its gates over one million persons. It is a long time since a few manufacturers and other public spirited men conceived the idea of establishing in Toronto an annual fair which would assume international importance. Through the lean years these men struggled, cheered by the hope of success. At last success has come, largely because of the loyalty, enterprise and unselfishness of those Canadian manufacturers who believed in the future of the Exhibition.

"The Vicious Circle."

IN dealing with the increased cost of living, *Liberty and Progress,* an Australian journal, illustrates the part the unions play in raising the prices of food.

"Many things send up the cost of living," it says. "The price of meat is one of them. Why is meat dear? To begin at the beginning, there are the slaughtermen. They are a well-organized body, dictate their own terms, and get very well paid. It is the same with the meat employees generally. They are always on the verge of increasing their wages, and very often get right over. What between the slaughtermen, the meat employees the shop hands, and the delivery hands, the cost of running a butchering establishment has gone up considerably. All the extra cost of wages is reflected in the price of meat, and it is the consumer who pays. The meat worker is also a consumer. It costs more to keep his family in meat, and the same causes that operate in making meat dear also make bread dear, milk dear, boots and clothes dear, and groceries and everything else that the butcher's household consumes. Out of the cause which makes meat dear the butcher gets a big dividend. If he had a monopoly of the wage-raising machinery he would be a good deal in pocket, but as all the other trades do the same he is probably out of pocket on the whole transaction. So it is no wonder that we read in his Union's last annual report that with the increased cost of living and the higher rents, it is imperative that wages should be increased! So the butcher's wage must again go up, and with it the price of meat. The bakers, who are themselves, like the butchers, a contributing cause, are also feeling the increase in the cost of living, and are asking for a substantial increase of wages, and no doubt we shall shortly have all the other employees who are connected with the production or supply of household commodities making similar applications, and getting their requests granted, and away will soar the cost of living again. And at the back of it all is always the landlord. The metropolitan population is rapidly increasing, houses are not being built, and rents will therefore also soar, and there will be some excuse for them too, because higher wages mean greater capacity to pay higher rent, and so the vicious circle will roll on until such time as it will undoubtedly reach the breaking point."

In Canada, the Unions also play their part in raising the cost of living. Efficient workmen deserve increases in wages from time to time, but the community as a whole should not have to pay indirectly the increases which the general strike secures for inefficient members of the Union.

Factory Planning and Slum Prevention.

MANUFACTURERS can do more than any other class to prevent the formation of slum districts in Canadian cities. If Canada, which has at present no real slums, is to escape these terrible civic evils, the co-operation of the manufacturers must be secured.

"Industry is the main cause of slums and congestion in the United States," says the *Chicago Tribune.* "The indiscriminate piling up of factories in one section of the city without proper consideration for home and dwelling facilities in that district fosters congested and insanitary tenements. The surest way to solve the tantalizing tenement problems of to-day is for the big industries to choose sites for their shops and factories in sections of the city that are spacious and roomy, and will permit of the building of proper homes for the workmen in these industries."

Slums invariably bring high rents and disease. The results of these evils are passed on to the manufacturer in the shape of increased wages and lower efficiency."

Germany and other European countries recognize the value of co-ordination between factory and home planning to escape congestion.

Attacks on Manufacturers.

MANUFACTURERS are accustomed to attacks. They are the targets against whom the revolutionary eccentrics expend their ammunition. Whenever some newspaper editorial writers are short of subjects, they take a fling at the manufacturers. If it were not for the long suffering manufacturer the tongue of the soap-box orator would cleave to his mouth for the lack of an audience and he would be forced to abandon the delights of rhetoric for the realities of work. One would imagine that manufacturers were a pestiferous class, preying upon a country which they did nothing to enrich or improve.

As a rule manufacturers accept the abuse which is directed against them in silence, chiefly because they are

CONVENTION NUMBER

AN extensive report of the Convention of the Canadian Manufacturers Association, which was held in Halifax, N.S., Sept. 16-18, will appear in the November issue of INDUSTRIAL CANADA We shall publish in addition an illustrated account of the delightful excursion through the Maritime Provinces, the retiring address of ex-President Gourlay, and special articles dealing with Nova Scotia and New Brunswick. The Convention number will be mailed on or before November first.

too busy to reply. Occasionally, however, one takes the trouble to present a few facts, showing the other side of the case. We take pleasure in quoting the following from a recent address of Colonel George Pope, President of the National Association of Manufacturers of the U. S.

"Manufacturing is the basis of all production. Even the farmer cannot produce his crops without the aid of the manufacturer, nor can such crops be distributed without the aid of the transporting appliances that have been manufactured. The merchant can neither sell, deliver, exhibit, advertise, nor account for the goods produced and transported without the aid primarily of the manufacturer.

"The consumer cannot be housed nor reach a market, expeditiously, cannot even if he could reach a market, utilize the natural raw products without those articles produced by the manufacturer. Light, heat and power, so indispensable to progress, depend not upon the farmer, the shipper, the merchant, the consumer, but upon the energy and ability of the manufacturer, and the wages paid by him, the means with which to purchase.

"Why, then, these continual attacks upon that body of citizens upon whom every man, woman and child is dependent? Why this joy at every assault upon the manufacturer? Why the unaccountable desire of so many legislators to penalize the manufacturer, to tax him out of existence or restrict his freedom of commercial intercourse? There can be but one answer. They are symbolic of the exhilaration of prosperity and a consequent ambition to destroy, typifying the lowest instinct of nature.

"In all the history of this nation there has never been a time when the necessity for organization and co-operation among manufacturers has been more apparent than to-day. Assailed by the unthinking, oppressed by the legislator, organizations such as ours with its great constructive policies have been made the football of politics and the target of the mud-slinging newspaper. If the great productive forces of the country are to be unimpaired, if manufacturers are to realize their importance as a class in the nation's welfare, and if they are to protect themselves effectively from the assaults from all sides upon their business existence and thus preserve the general prosperity, they must stand together in purpose and deeds."

Canadian manufacturers, while not accustomed to the degree of abuse directed against United States manufacturers, are nevertheless the targets for the quack reformer, the agitator and the demagogue, whose only object is to magnify their own importance by attacking big men.



ON THE WAY.

—Regina Leader.

It Rests With the Future.

IN view of the fact that the prophecies regarding the certain results of the Underwood tariff in the United States are legion, it is interesting to notice the opinions of President Buffington, of the Illinois Steel Company, and of Vice-President Wheeler, of the Union Trust Company, published in a recent issue of the *American Metal Market.* President Buffington says:

"It is difficult, if not impossible, to foretell accurately the ultimate effect of the proposed tariff legislation on general business conditions.

"The revision proposed is a radical reduction from the prevailing tariff rates. Many industries formerly protected by a substantial duty are on the free list. Policy seems to be in conformity with the desire of the majority of voters at the last national election.

"Personally I believe in the wisdom of a tariff policy which amply protects industries and markets against invasion by foreign manufacturers and producers who operate under wage scales substantially lower than the American workingman is accustomed to. My faith in the resourcefulness of our people leads me to the opinion that in some way we shall be able to adjust ourselves to changed conditions incident to the proposed tariff soon. All should bear in mind that the policy which produces the best results for the greatest number will prevail in the long run."

Vice-President Wheeler of the Union Trust and President of the Chamber of Commerce, says:

"The United States, throughout the country, shows splendid solidity, and is prepared to withstand the shock of the new tariff, which will work much harm to certain lines of production, although the general result may not be bad. Five years ago, if all things had happened that are happening in national life to-day, we could not avoid a period of prolonged panic and depression. Business goes on, and the country prospers in spite of unfavorable factors, and that is because business has been preparing itself for just such shocks. Liquidation has proceeded, and stocks of merchandise are everywhere low."

The supporters of the Underwood bill claim that it will be successful before it has been tried. Moreover, they prescribe its measures as remedies for other countries, such as Canada, which is almost entirely lacking in those symptoms which disturb the commercial health of the United States. The able and experienced men of the United States

are withholding their verdicts until time has tested the value of the Underwood policy. Canadians can also afford to wait.

"Free Trade Tariffs."

IT is extraordinary but true that the people who hail with delight the Underwood bill in the United States as the creator of a "Free Trade Tariff" are loudest in their condemnation of the Canadian tariff as the "guardian of the interests."

Yet, according to the estimates of the United States Finance Committee, this "Free Trade Tariff" will produce an average rate of duty of not less than 26 per cent. The average rate of duty imposed by our "Protectionist" Canadian tariff in 1912 was only 15.66 per cent, according to the Trade and Navigation returns.

Protecting the Woollen Industry.

MR. R. S. GOURLAY, following up his statement made at the Halifax Convention, that "the woollen schedule is not what it should be, otherwise an industry that should be indigenous to an agricultural country like Canada would not have languished as it has," published the following figures, dealing with the mills, looms, cards and production of Canadian woollen mills, to prove that the woollen industry has indeed "languished":

Year.	Mills.	Looms.	Cards.	Production in Yards.
1885.....	241	2,062	460	13,609,200
1899.....	236	2,120	477	13,992,000
1907.....	148	1,561	348	9,972,600
1912.....	78	1,154	224	7,616,400

Whether the tariff on woollens is revised or not, these figures are worthy of serious consideration.



THE CRIME OF BEING A BUSINESS MAN

The business man's life is not a happy one, in the cartoonist's opinion, with oft-recurring strikes, political interference and regulation, rumours of war, etc.

Herald, New York

United States Unions in Vancouver.

THERE seems to be more than the question of international unionism involved in the Vancouver Island coal riots. It is stated on good authority that the owners of coal mines in the State of Washington have helped to bring about the strike in order to secure the British Columbia market.

In support of this grave charge, it is pointed out that the miners left work without stating reasons for their action. No complaints were made regarding wages or the state of the mines. Later, a section of the strikers admitted that their object was to secure the recognition of the international union.

Canadian industry is in peril if foreign competitors through an unholy alliance with trade union leaders can induce Canadian members of international unions to stop work at their pleasure.

The McNamara outrages have been duplicated to some extent on Vancouver Island, and the whole district has been terrorized by special instructions from the United States. Trade Unionists in Canada represent two per cent. of the population. How long will the remaining ninety-eight per cent. submit to intermittent outrages at the hands of the violent fraction of the two per cent. directed by the unscrupulous organizers from the United States?

If our progress as a nation is to be as rapid as our prospects indicate, action must be taken to prevent the menace to life and property and the delays to construction work and industry which are the result of the constant interference of foreign labor agents, who are often in the employment of the competitors of Canadian employers and interested financially in securing the temporary paralysis of our industries.

Syndicalism in Canada?

THE peculiar character of certain accidents which have "happened" recently suggests that syndicalists are at their work in Canada.

In his book, "Minimum Wage and Syndicalism," which has just been published, Hon. James Boyle has compiled the following summary of the professed objects of Syndicalism:

1. Organization of the wage earners into "industrial groups" instead of "craft unions," as is the rule now.

2. Fostering a spirit of not only "class consciousness" (as is the aim of the Socialists), but of bitter, irreconcilable class hatred on the part of all wage earners against all members of the community who do not perform manual work and who are "capitalists," or who receive their means of livelihood through profit on industry or income from investments.

3. Rejection of all forms of political organization and of parliamentary action, and the denial of the legitimacy of all forms of government, constitutional and representative, as well as autocratic.

4. Indifference to all ameliorative and reformative labor, social and political measures.

5. Especial opposition to the police and military.

6. The habitual use of the strike, particularly the "general strike," not so much to remedy specific grievances as to establish improvements in conditions of labor, and then only for "training" purposes —as to cripple and ruin employers, and to paralyze the industries of the country.



Why Not the Rest?
—American Industries

7. The use of "sabotage"—that is, damage to and the destruction of machinery and the means of production and distribution, including such damage to plants as will prevent the operation of what are classed as "public utilities"; and any means to interfere with the process of production and transportation.

8. The possession of the means of production and distribution by the wage-earners in each industrial group, either by the collapse of capitalism through the general strike or by forcible seizure, if necessary,—in either case no compensation to be paid.

9. The establishment of an "Industrial Commonwealth," to be ruled by executive committees of each labor group, which shall take the place of all civil government as now constituted, including parliaments, congresses legislatures, and councils, and all executive and administrative officers, and all courts, no matter whether the form of government be republican, monarchical or autocratic.

Such a social system as that outlined above seems to be the nightmare of a degenerate. How men, openly professing and secretly practising such doctrines, can remain in this country is no small compliment to our British toleration of all beliefs.

West Wants Manufacturers.

THE view of Western Canada towards manufacturing is rapidly changing. A few years ago the West, under the influence of the grain growers, was hostile to industry. The wonderful growth of her cities, showing the manifold advantages of industrial co-operation with agriculture, chilled the Free Trade fervor. The Underwood Bill, which gives the West practically all she demanded through Reciprocity, did the rest. The new Western spirit is crystallized as follows by the *Winnipeg Telegram*: — "We have no sympathy with the view that there is inherent antagonism in the West against manufacturers as a class. Men with political purposes to serve are careful to foster such a spirit. It should not, as a fact, be a matter of politics at all. There are sound economic reasons why manufacturers who have, perhaps, not unnaturally, up to now, centred their activities almost exclusively in the East, should now begin to turn their attention, with more seriousness, to the needs of the West. The West has ceased to be a great grain field only. Big cities have sprung up on the plains, the development of natural resources has been proceeding apace, our agricultural population has grown amazingly in recent years. These cities and towns of the West need manufacturers to round out their civic life. The basis of every community is rightly acknowledged to be agriculture, but no centre can achieve its true greatness if it is to remain entirely dependent upon agriculture. There was a time in the West when population was sparse, raw material not easily obtainable, and labor difficult to procure. Manufacturers were then reasonably ustified in refraining from entering upon costly ventures. But that day has passed. Every year sees the manufacturers' Western market increasing."

Preliminary statistics from the revised estimate now being prepared by the *Monetary Times* show that the total amount of United States capital invested in Canada is $599,000,000, of which $150,000,000 is in branch factories and warehouses, and $130,000,000 is in British Columbia mills, timber, and mines. The prairie provinces have secured their share of United States capital.



Building Cofferdam in Connection with the C.N.R. Causeway Across Rainy River

BUILDING A CAUSEWAY OF ROCK ACROSS AN ARM OF RAINY LAKE

THE milestones of progress in Canada are bedded deep in the spectacular engineering achievements of its railway building. In this land of distances trade is transportation, and in every case where the genius of the constructing engineer has triumphed over the obstacles of Nature commerce has experienced an acceleration marked enough to attract wide attention. Every one is familiar with the great works of the older roads, but, until recently, little has been heard of the conquests of the Canadian Northern in this department of railway building. That virile, progressive road which is rapidly attaining the status of a transcontinental by the linking together of its separate clusters of line, has many remarkable monuments to the outstanding ability of its builders. Within the next few years it will have added to these its tunnel and terminal in Montreal, its tunnel and terminal in Vancouver, and it will also have succeeded in stretching a great double-tracked causeway of granite across Rainy Lake, about midway between Port Arthur and Winnipeg.

Three and a quarter miles of drilling are involved in the driving of the tunnel through historic old Mount Royal in Montreal; from three to four miles will probably be necessary for the entrance to the terminals in Vancouver; this rockway across Rainy Lake will be almost three miles long, and will cost very close to one million dollars a mile. In this country the railways have developed the habit of proceeding with great constructive projects without initiating the public to the significance of the work. There has been no departure in this case. The Canadian Northern have been engaged upon it continuously for the past two or three years, and so quietly has the task been conducted that very few people in Canada to-day are even aware that anything out of the ordinary is occurring there. Yet so much progress has been made that the company looks forward to its early completion. Indeed it is even hinted that the heavy wheat trains from the west this fall will roll smoothly over its solid length on the way to the waiting freighters at the head of Great Lakes navigation. While this is hardly probable owing to the nature of the difficulties still to be met, it is so far advanced as to be an important factor in transportation in Canada in the near future.

Its Well-Timed Formation.

The Canadian Northern Railway came into existence just when the tide of immigration from other countries began to be deflected Canadaward. It came into the national life because of the need of additional transportation facilities. If Canada's expanding prosperity was to continue many new lines had to be built, especially in Western Canada. The nation's need and calls were responded to by two men, builders of railways, who secured a dormant charter and laid down

twin lines of steel across one hundred miles of new, sparsely settled land in Manitoba. That line was completed about Christmas in 1896 and was operated successfully. It connected the village of Gladstone with a settlement, now the thriving town of Dauphin. Immigration continued to increase rather than diminish, and the lines of the new company began to nose their way out over the new country that had been selected for the founding of homes by the newcomers. That was less than seventeen years ago. To-day the one hundred miles has grown into nearly seven thousand, has spread over six provinces, and will shortly graduate into the transcontinental class with terminals at both Atlantic and Pacific tidewater. In the beginning the road was consecrated to development, and the vows have been kept to this day. The Canadian Northern did not follow the lines of least resistance and parallel existing lines. The policy was to avoid that. The road wanted to give transportation where its blessings had been sadly lacking before. It sought out new territory, and then started in to increase that particular district's population and prosperity.

At the beginning of this century the development of the western province demanded a new outlet to lake navigation. The Canadian Northern set itself to the task and in 1901 construction was in progress on a new line to connect Winnipeg and Port Arthur. Conditions compelled rapid construction. Consistent in its policy, the company sought a route for its line to the south, and finally decided to tap the iron deposits of the Atikokan and Mattawin ranges in the hope that great development would follow the steel. That development is taking place to-day. But the line as located crossed an arm of Rainy Lake. That could not be avoided and the desired object attained. The crossing proved difficult and threatened to hold up the opening of the line. The west was impatient, and the company finally decided to throw a series of trestles across the three miles of water and open the road at the earliest possible moment.

The First Surveys.

In 1910, with its transcontinental rapidly taking shape, a survey was made to locate a crossing worthy of the project. It was thought first that a series of steel bridges would do. This did not work out. The investigation continued and a little later the news filtered through that the company was seriously contemplating the building of a double-tracked permanent way of rugged granite construction. This was to connect a series of little, rocky, pine-clothed islets from mainland to mainland. Work began without fuss. Soundings were taken with rods driven down to the rock and the location determined in similar manner as where hills and valleys have to be contended with. Estimates were compiled of the number of tons of rock required to get down to solid rock. Incidentally these estimates were later completely vindicated.

Early in the summer of 1910 the contracts were let and preparations for the task begun. By July station men were starting short fills out from the shores of some of the islets. On September 16 of the same year the first big "shot" was fired, and in October digging by the steam shovels was inaugurated. That winter two shovels were kept at work, and in the following summer four were in commission. Until the fall of last year those four shovels attended by eight standard gauge locomotives, two "dinkey" engines, and sixty dump cars, forwarded a steady stream of rock to the dump. The biggest output in one month was 50,000 cubic yards of rock. For one steam shovel in one day the record was 155 cars, or, to translate, about 900 cubic yards. Some single rocks loaded by these 90 ton shovels weighed more than 20 tons. On May 1st, 1911, dumping commenced on the second channel filling, three thousand feet across. Forty train loads of rock, every day for a year, were dropped before this was completed. Repeatedly, for two weeks at a time, this dumping was continued within a car length before the tracks could be extended ahead. Sometimes sudden settlings occurred during the working hours and trains and crews had narrow escapes.

Electric power—a voltage of 6,600—is brought from Fort Frances. That is a distance of seven miles. Two motors of 200 horse-power each run two compound air-compressors which supply 1,046 cubic feet of free air per minute to 100 pounds per square inch, at which pressure pipes carry this air to the drills. These put down holes as far as 28 feet, tapping, in diameter, from three to two inches. Following the drillers come the "powder" men, who spring the holes repeatedly with dynamite until a pocket large enough to contain the explosive necessary for a giant blast is made. Then a group of holes are loaded and wired. They are fired by electric current. These are the so-called "big shots." Of this class there have been about 75, averaging from ten to fifteen thousand cubic yards. The largest contained 56,000 pounds of dynamite and broke up 50,000 cubic yards of rock.

The total rock filling will aggregate nearly a million cubic yards measure, solid, in original position. The average haul was one mile. The work is so big that one fails to grasp it until actually following the rock from blast to end of grade. The shovels load a car with broken rock in five minutes.

A Great Bit of Engineering.

There are some remarkable features about this work. It will bulk large enough to create an impression of awe and astonishment in the mind of the casual visitor. From that



Showing Fill from the West End of the C.N.R. Causeway

standpoint it will appeal to the general public. But to the engineer and the man who knows something of the difficulties always attendant upon colossal construction works, the conditions peculiar to the building of this rockway, and the methods resorted to by the contractors to win out, will comprise its greatest charm. There are always problems to be met in building a permanent way through water. In this case the C. N. R. had to meet difficulties greater than usual owing to the length of the "fill" over all, and the depth of the water. Besides, Rainy Lake is navigable, and the passage of the steamers, and also the timber, to the mills at Fort Frances and other points in the Rainy Lake country, could not be interfered with. To meet the latter exigency the company decided to throw two lift bridges of modern type across two waterways at convenient points. As there is nothing very new about that the accomplishment is only a matter of time. But in the



Drilling and Blasting the Last Section of Rock in the Rainy River Causeway

beginning the contractors spent many an anxious hour in evolving a method to successfully do the apparently impossible in dumping rock ahead of the fill in water. The man who finally submitted the adopted plan established a precedent in engineering so far as can be learned.

The dumping apparatus really is a floating bridge. It consists of two plate girders 6 feet high and 140 feet long. These are placed 30 feet apart and support a pair of tracks as on the ordinary bridge. The forward, or water end, is floated by a barge 34 feet wide and 112 feet long; the embankment end rests on the permanent way when the dumping is in progress and is upheld by a cross-wise truss between two small barges, one on each side of the grade when floating is effected to a new position ahead. The trains loaded with rock are run out on this floorless bridge and the contents of the cars hurtle down to the lake bottom. About one-third of the grade is added afterward by side dumping as the bridge is moved on.

Hope has been entertained by the Canadian Northern that the big rock fill would be ready for operation this fall. That is possible, but from the nature of the work still to be finished it is likely the opening date will have to be extended into 1914. That means it should be ready for service about the time the C. N. R. connects its eastern and western Canada lines by the completion of the steel between Sudbury and Port Arthur. It is stated positively that the steel will be laid on this line by the end of the year. It will be given its final touches for operation as rapidly as possible. The line through Yellowhead Pass that will join the western provinces with the Pacific coast at Port Mann and Vancouver will not be finished till a little later. But it is being driven through as rapidly as any other piece of Canadian Northern line has ever been driven, and through transcontinental trains should be leaving Montreal, Toronto, Ottawa and other eastern cities in 1914. That line complete will be a revelation to the Canadian people. It will have gradients as low as any cross-continent line in the world, and tourists and fishermen and hunters, in fact all lovers of the splendid outdoors will find along its lines the largest measure of entertainment to be had anywhere.

LIMITING HEIGHT OF BUILDINGS IN U. S.

The following is a partial list of the restrictions as to heights of buildings enacted by cities and towns in the United States:

Baltimore—Fireproof buildings limited to 175 feet, and non-fireproof to 85 feet.

Boston—Two and a half times the width of the street, the maximum being 125 feet.

Buffalo—No height greater than four times the average of least horizontal dimensions of the building.

Chicago—An absolute limit of 200 feet.

Cleveland—Two and a half times the width of the street, with maximum of 200 feet. Recesses or set-backs to be counted as added to the width of the street.

Denver, Colo.—Not to exceed twelve storeys, and those more than 125 feet to be fireproof.

Jersey City, N.J.—No building or structure except a church spire shall exceed in height two and a half times the width of the widest street upon which it stands.

Los Angeles—A limit of 150 feet.

Newark, N.J.—Not to exceed 200 feet, but warehouses and stores shall not exceed 150 feet.

New Orleans, La.—The height at the street line shall not exceed two and a half times the width of the street which the building faces. Setbacks are to be counted as added to the width of the street.

THE FUTURE OF FUR FARMING.

Much has been heard respecting the fabulous prices paid for silver fox skins, and, stimulated by the hope of big profits, many companies have gone into the business of farming foxes.

Now, the value of a silver fox pelt is largely subjective. Its cold-excluding power and its wearing qualities are not any greater than those of an ordinary dog skin. The fox fur is more beautiful, but beauty alone cannot account for the great difference in price. The high price of the fox is due to its rarity, and its rarity is prized because it pleases the vanity of the wearer to display something that ordinary people cannot afford. At the present time, therefore, fur-farming merely panders to the luxurious tastes of a few rich people. Society as a whole would be little the poorer if every silver fox ranch went bankrupt to-morrow.

Is this to be the future of the industry? Or will the fur-farmers, once the boom is over, settle down to the prosaic business of providing common furs for people of moderate means? Not till this comes to pass will fur-farming take rank with other occupations that furnish us with staple articles of clothing. It can never become as important or as fundamental as sheep-raising or cotton-growing, but it should certainly take as high a place in the world's economy as rearing silk worms. The enterprising breeder of "silvers" is entitled to make all the money he can, but the keeping of animals for fur will be more of a national asset and will be on a more permanent basis when we hear less about $5,000 foxes and more about $5 raccoons.—*P. M. B. in Conservation.*

HOW NEW BANK ACT DEALS WITH MANUFACTURERS' PLEDGE OF RAW MATERIALS

By H. M. P. ECKARDT

IN view of the protracted discussion of the unregistered pledges or liens, on the security of which manufacturers and wholesale dealers are accustomed to borrow extensively, it will be worth while to take note of the clauses of the new Bank Act dealing particularly with them. The matter is covered by sections 88, 89 and 90 and subsections thereof. For the purposes of this article the discussion will be confined largely to the clauses relating to manufacturers.

The new Act interprets "manufacturer" as follows:—"'Manufacturer' includes manufacturers of logs, timber or lumber, maltsters, distillers, brewers, refiners and producers, of petroleum, tanners, curers, packers, canners of meat, pork, fish, fruit or vegetables, and any person who produces by hand, art, process or mechanical means any goods, wares or merchandise."

This interpretation is identical with the interpretation in the old Act, which finally expired on 1st July, 1913.

Section 88 empowers the bank to lend money to any wholesale purchaser or shipper of or dealer in products of agriculture, the forest, quarry and mine, or the sea, lakes and rivers, or to any wholesale purchaser or shipper of or dealer in live stock or dead stock or the products thereof—on the security of the unregistered lien.

Subsection 4 of the new Act corresponds with subsection 2 of the old. The wording of this clause has been altered; and in order to show clearly the change that has been effected the new and the old clauses are set forth in parallel columns.

New Act.

"If, with the consent of the bank, the products, goods, wares and merchandise, live stock or dead stock or the products thereof, upon the security of which money has been loaned under the authority of this section, are removed and other products, goods, wares and merchandise, live stock or dead stock or the products thereof of substantially the same character are respectively substituted therefor, then, to the extent of the value of the products, goods, wares and merchandise, or live stock or dead stock or the products thereof so removed, the products, goods, wares and merchandise, live stock or dead stock or the products thereof so susbtituted shall be covered by such security as if originally covered thereby; but failure to obtain the consent of the bank to any such substitution shall not affect the validity of the security either as respects any products, goods, wares and merchandise, or live stock or dead stock or the products thereof actually substituted as aforesaid or in any other particular."

Old Act.

"The bank may allow the goods, wares and merchandise covered by such security to be removed and other goods, wares and merchandise, such as mentioned in the last preceding subsection, to be substituted therefor, if the goods, wares and merchandise so substituted are of substantially the same character, and of substantially the same value as, or of less value than, those for which they have been so substituted; and the goods, wares and merchandise so substituted shall be covered by such security as if originally covered thereby."

It is to be noted that in the old Act this clause followed immediately after that authorizing the loans to the wholesale purchaser or shipper or dealer. And in the new Act it follows the clause authorizing loans to persons engaged as wholesale manufacturers. So there is now a more direct inference that the provisions for substitution apply to the manufacturing borrowers.

And subsection 2 contains the newly-granted authority for the bank to lend money to a farmer upon the security of his threshed grain grown upon the farm. Subsection 3 deals particularly with the manufacturer. It reads: "The bank may lend money to any person engaged in business as a wholesale manufacturer of any goods, wares and merchandise, upon the security of the goods, wares and merchandise manufactured by him, or procured for such manufacture." The wording is identical with that of subsection 3 of the old Act.

Then subsection 5 of the new Act provides that the security hereinbefore referred to may be given by the owner of the goods; and subsection 6 prescribes the form in which the security is to be given. These subsections correspond respectively to subsections 4 and 5 of the old Act. In the old Act subsection 6 merely stated that the bank, by virtue of such security, should acquire the same rights and powers in respect to the pledged goods as if it had acquired the same by virtue of a warehouse receipt.

Subsection 7 of the present Act, which covers this subject, is similarly phrased; but it contains a rider which provides that the wages or salaries of persons employed by the pledgor, for a period not exceeding three months, shall be a charge upon the pledged property in priority to the claim of the bank; and the bank is required to pay such wages, salaries, or other remuneration if it takes possession or disposes of the property.

Section 89 and subsections 2 and 3 are practically the same as in the old Act. The section itself provides that when the bank has taken security in the aforesaid manner, or by way of a warehouse receipt, on goods which are subsequently manufactured into a different form, it has the same right and title to the manufactured goods, or the goods in process, as it had on the raw material.

Subsection 2 establishes the claim of the bank to the pledged property in preference to the claim of an unpaid vendor, except in case the unpaid vendor had a lien upon the goods at the time the bank acquired its warehouse receipt, bill of lading or pledge. However, even in that case, the clause states that if the bank is without knowledge of such an existing lien its claim would be superior to that of the unpaid vendor possessing the lien.

Subsection 3 prescribes the steps that are to be taken by the bank to safeguard the interest of its debtor if it proceeds to sell the pledged property in order to satisfy its claim. Provision is made for sale by public auction after due notice.

All these clauses, as remarked above, are practically the same as the clauses of the former Act.

Also section 90 and subsection 2 are practically unchanged. Section 90 provides that the bank shall not take security in this manner to bolster up or support an old or pre-existing debt. The borrower's own pledge, the warehouse receipt, or the bill of lading, is declared to be invalid in the bank's hands unless the bank loan or advance secured thereby is negotiated or contracted at the time of the acquisition of the security by the bank; or upon the written promise or agreement that

the security would be given. And the subsection provides for the conversion of the pledge or the warehouse receipt into a bill of lading if the goods are shipped; for the conversion of a pledge or a bill of lading into a warehouse receipt, and for the exchange of one bill of lading for another.

In the course of the Bank Act discussion before the Banking and Commerce Committee, Mr. H. C. McLeod stated that he considered the unregistered lien to be more in the interest of the borrower than of the bank. He said if registration was required many applicants for credit would be refused and many business men who now borrow in that way would never apply for the credits.

Mr. Gordon Waldron, of *The Weekly Sun*, in his evidence was more disposed to dwell upon the possible injury to outside creditors when the bank has a secret lien on the manufacturer's assets. The Minister of Finance, in seeking Mr. Waldron's views, stated that as he understood it the business done under section 88 was as follows: "A manufacturer obtains his raw material and desires to pay cash for it. He obtains a loan from the bank to make that payment. He gives a lien to the bank on that raw material, and that lien is a continuing lien upon that raw material, transformed into the finished product, and until sold; and then the bank debt is liquidated."

A Continuous Lien.

Mr. Waldron insisted that the process was somewnat different. "What takes place," said he, "is that the debtor buys merchandise for the purpose of manufacturing it into goods. He receives from the bank money to pay for it and gives the lien upon it. He manufactures the goods, or partly manufactures them, and renews the lien. The goods disappear and other goods come in; and, in practice, track is lost entirely of the original goods, but the lien is made to cover other goods and all goods that he may have in his possession then or thereafter."

His claim was that the exercise of this banking function tended to unduly stimulate manufacturers and to fix banking assets which ought to be liquid. This witness also enlarged upon the matter of the injury done to outside creditors of the manufacturer in some cases when the bank had a secret lien covering practically everything.

Mr. Joseph Henderson, Vice-President of the Bank of Toronto, explained to the committee the circumstances under which the unregistered liens were added to the banking law. They were introduced at the time the National Policy was adopted. "The Government desired to give greater facilities to manufacturers, and the impelling motive that led to these clauses being put into the Act was to enable the manufacturers who had to put a great deal of capital into buildings, and who required an additional amount of working capital, to carry on their business; it enabled them to go to the bank and upon the security of their raw material they could obtain an advance to cover the period of the working up of these goods in process of manufacture and distribution." He says the original intention was to keep this confined to large transactions by fairly large manufacturers who had capital; and he thought the practice should not be carried too far.

Sir Edmund Walker also gave an explanation of the working of the lien in connection with manufacturers' accounts. He began by saying that the manufacturers of Canada are well enough off not to need this kind of help now to any great degree. He then took the case of the maker of an article in which wood and steel enter largely, and which is made up and sold to the farmer at a certain season. Quoting from his evidence: "The expense of buying the raw material and paying for the wages goes on from the beginning of the manufacturing season until the moment when the goods are delivered, and even then the bank has to wait, of course, the final payment by the buyer of the article. In the early days when a manufacturer began with a capital of $50,000—and that was quite a large capital then—he might turn out products in one year to the extent of $200,000. And the banks in those days might lend $125,000 or $150,000 to a manufacturer whose capital was only $50,000, on his pledge, when they saw that the money they lent was used in payment of the lumber, the steel, and the wages."

While he thought the clauses are not now so much needed perhaps as in former days, Sir Edmund considered that it would be a great harshness to the small manufacturer who is trying to start in competition with the larger concerns if through the abolition of these clauses of the Bank Act he was prevented from getting the same kind of help that his competitors once had.

RUSSELL MOTOR CHANGES.

The Russell Motor Car Co., Limited, announce that their accessories business, which has been known under "National" Motor Accessories, will in future be handled by the Canada Cycle & Motor Co., Limited, West Toronto.

This means a consolidation of three departments that are very closely associated, namely, bicycles, bicycle accessories, motor cycle and automobile accessories, and promises greater efficiency in the handling of a combined department and marketing of a high grade line of accessories. The announcement has been made at a time when a change of this kind could most easily be effected and will be of great interest to the automobile trade.

Mr. J. W. Gibson, Sales Manager of the Canada Cycle & Motor Co., Limited, will have direct charge of this department of the company's enterprise. The purchasing of the combined departments will be looked after by Mr. J. R. Dixon.

The International Railway Publishing Company, Limited, of Montreal, well known throughout Canada as the publishers of the Canadian Railway Guide, have just completed an extension to their building of over 3,000 square feet to provide more room for their printing department.



The Union Joss is Supreme in Australia.

RELATION OF FARMERS TO MANUFACTURERS

This article is part of an essay which won one of THE INDUSTRIAL CANADA scholarships awarded to the students of the Ontario Agricultural College, Guelph. As a farmer who is studying agricultural questions, Mr. Miller has expressed his views on the problem of bringing about co-operation between manufacturers and farmers to benefit both classes

BY JUSTUS MILLER

A PECULIAR situation exists in this country to-day. The consumer of goods declares that farmer, manufacturer and retailer combine to rob him. Each of these three have a hard luck story to tell, and accuse the others of making the profits. The relations between the farmers and manufacturers have, therefore, not always been as mutually trustful and happy as could have been desired.

The great advance in manufacturing is still causing uneasiness among farmers. Cities are growing larger and manufacturers are becoming more and more powerful, while agriculture is not developing in the same ratio. Lack of political fairness and the undue influence of special interests are popularly blamed for this, but there are many reasons quite apart from political ones. Finer commodities are desired now than formerly. Once oatmeal was bought in barrels. Now the housekeeper requires a breakfast food in a cardboard box. Everything is made marketable by refined processes, and these demand labor and capital. Hence manufacturing expands as our wants become more numerous. It is true that this modern tendency is developing the fruit and dairy industries. But these are confined to a few districts, and, withal, they do not offer the same oportunities of expansion as do some lines of manufacturing.

City Draining Country.

This rapid growth of the cities and the depopulation of the country has caused much bitter discussion. In the last ten years 75,000 persons have been lost to agriculture in the Eastern Provinces. In many farm journals we find the tariff attacked as the cause of this. It is argued that by it alone the manufacturers are enabled to pay for all their labor. Then, since they have the natural profit on their wares, they are placed in a position of tremendous advantage. But the manufacturers argue that the farmers are also benefited by the tariff. In this contention each disputant is partly right. But certainly the manufacturers reap the profits derived from the tariff—although it may be through no fault of theirs that the farmers do not receive their share also. The latter do not usually set the price on their produce. They generally sell to dealers at the price offered, and the dealers get the benefit of the tariff when they sell. If the manufacturers buy directly from the farmers they get the benefit at both ends. They are further protected by receiving many raw products free of duty. So, while in theory the tariff is beneficial to the farmer, in practice it often proves detrimental.

However, the drift of men to the cities is not due to the tariff. The said refining processes of manufacturing have much to do with it. Moreover, these men are actually farming while working in the city factories. In the pioneer days all men were needed upon the soil, as all manufacturing processes were performed there. But when these were transferred to the towns the laborers did the work for the farmer as directly as ever. As specialization evolves it takes fewer and fewer men upon the land and more and more in the factory. One binder will do the work of several laborers; but the latter are still at work—making the binder. It is doubtful if a reduction of the tariff would at all check this trend from country to city; indeed in England it appears to be worse than here, although the system of land ownership may influence it there.

West Takes Farmers.

There is a far greater factor, however, quite apart from politics or factories, that depopulates eastern farms and tends to make eastern farming unprofitable. This is the trek to the West. The free land calls thousands annually. The settlers rely upon a rise in land value to pay them for their work, and the growing of crops is often a secondary consideration. Hence the eastern farmers have to grow crops in competition with those that are sold very often at a loss. As a result the over-production of the West, with a scarcity of money, high interest and excessive railway rates have caused a most abnormal condition in the West that also affects the East. Farmers, who are usually considered to be conservative, are the most violent reformers in many sections.

There is still another feature to be considered. The success of manufacturing industries depends upon the markets. Land has little to do with it. So manufacturing may expand to the extent of the market, which is the whole world if it can be entered. Therefore, if one man can operate a machine at a certain profit, thirty such men can be hired to operate thirty such machines, and from each a similar profit can be obtained if the market widens. But with agriculture the conditions are exactly the opposite: its scope depends principally upon land—and land surface is limited. A farmer has very little chance to expand his business. If he tries to produce more by means of intensive methods his efforts soon become unprofitable because of the law of diminishing returns. For instance, one man may grow 1,000 bushels of corn upon 20 acres. Two men on the same area might produce 1,800 bushels—but under no condition could they produce twice as much as the first man. So the work of the second accomplishes less than that of the first. If four or five men were employed the increase caused by the last man's work probably would not pay his wages. Contrary to popular belief, the ideal agricultural condition is not that of highest crop yield per acre, but is that of highest money return per man. If intense farming is practised so that the marginal profit falls very low a condition is reached similar to that in China. But if the profit per man is high we have the more favorable social and labor conditions of America. Hence although this problem of rural depopulation is exciting many people, the conditions are quite healthy and could not well be different in a young country of this area, where labor is relatively dearer than land.

The Market Controversy.

The question of markets has caused much hard feeling between farmers and manufacturers. A policy that must eventually prove very unwise has sometimes been employed by the latter. It often has done the farmers very little good to study market conditions owing to the lack of competition among the buyers. Combines are sometimes formed whereby certain interests control prices. These latter continue to soar while the farmer's price rises very moderately indeed. As a result, while consumers declare they are being robbed, the

farmers cease raising these very lines of produce because their profits are too small. The result is a falling off in production, so that the manufacturers gain no more than if they handled more goods at a smaller profit. A generally accepted business truth is that the basis of success rests in a great volume of business at a small unit profit. At any rate, these conditions have not helped to soothe the distrustful feelings of the farmers.

A source of great trouble is the question of capital. Business men see great opportunities before the farmers. By making numerous investments they believe the farmers would become rich, for these are all sure to pay in the end. The manufacturers can usually secure what capital they require and believe the farmers can do likewise. But this is not so easy as it would seem. Loan companies prefer to lend money where it will circulate rapidly, else a money stringency would find them with little available funds. Mortgages or long notes are not attractive to them, and interest is correspondingly high. Hence the financial end of the farmer is apt to come before his investments pay. All farmers, therefore, are not fools because they do not jump at perfectly sound investments, although the manufacturers, from their viewpoint, may be pardoned for thinking so.

The Present Situation.

This attitude is not relieved by the peculiar situation existing to-day. The farmers are receiving larger returns for their produce than ever before and are thought to be prosperous. But a close study shows that mortgages are increasing and that farmers are becoming more and more dissatisfied—violently so in some of the Western Provinces. They accuse the manufacturers of making unduly large profits at their expense. But the manufacturers have a different story to tell. They argue that owing to western free land, labor is very scarce. The East suffers from under-production and the West from over-production. Rents, taxes and labor are high and they are not making an unduly large interest on their money invested. This in very many cases is absolutely true. They complain that the difference between the price of raw products and the wholesale price at which they sell is not yet large enough.

The consumer, like the farmer, compares the first price to the retail price, but includes everyone in the blame. He is inclined to brand farmer, manufacturer and retailer as a triangle of robbers who take all he can earn.

But the retailer has as hard a story to tell as anyone. The prices are taxing the consumer to the utmost, he admits, but he argues that he makes nothing by the increase. It was my privilege to see the quarterly accounts, just closed, of a very large retail meat business that operates twelve stores in one of the large cities of the Dominion. It has special privileges of obtaining produce at the very lowest wholesale prices. During the quarter a business of many thousands of dollars was transacted, but a profit of only $1,800, or less than three per cent., was shown. The situation was carefully studied, and it appears that many things cause high prices that are not usually considered when farmers' and retailers' returns are compared. In one of the smallest stores the cost of delivery amounted to ten per cent. of the total sales. In the largest it was three per cent. The cost of oiled wrapping paper, electric fans, cash systems, etc., equalled a total of from ten per cent. to fifteen per cent. of the sale returns. So the price charged by the retailers is not only for the articles bought, but for the service, delivery and all attendant expenses as well. Twenty years ago the housewife went to the stores and purchased her goods and carried most of them home—now she orders them by telephone and has them delivered. The whole difficulty is that people somehow expect to live in the manner of to-day upon the same amount which it cost their fathers to live in the more simple manner of twenty years ago. Hence the farmer is not justified in believing that the differences in the price he receives and the price the retailer receives forms a profit for a few persons. It supplies many men with labor and is part of the price we pay for our modern methods of living and business. The best the farmer can hope to do is to raise the standard of the products and to sell more directly to the final purchasers so as to lower the cost of handling.

The True Relations.

The dependence of the two factors we are studying upon each other is very marked. The farmer is indebted to the manufacturer for his mechanical power, for his clothes, for his household furnishings, and, in short, for everything that makes life more pleasant and comfortable than it was in pioneer days. Moreover, the farmer has lost his old independence in another way. All farming is of a commercial nature, and farmers now live upon the profits of farming and must have markets. The manufacturers not only buy his raw material, but they create a home market for finished products.

The manufacturers, on the other hand, are quite as dependent upon the farmers. A manufacturing policy is very attractive, but it may be practised only on small sections of the globe. If all land were used for manufacturing processes the attempt would be, as Carver likens it, to the attempt of the inhabitants of an island to make a living by taking in each other's washing. There must be a market, and the principal market is afforded by those engaged in the extractive industries. Of these the farmers form the most important element, and they produce all the food upon which others must depend, except that which comes from the water. The real importance of the farmer to the manufacturing world is shown by the widespread prosperity in times of abundant harvests and the financial stringency caused by a prolonged shortage.

In short, the farmers and the manufacturers are so dependent upon each other as to have interests inseparably related. Any effort by one element to exploit the other must eventually end in loss to both. The great question before our statesmen is to work out a true democracy. Success means national greatness and a happy and contented people. Failure means concentrated magnificence at the expense of widespread misery and a certain ruin common to all artificial industrial growths.

Taxation Reform.

The revenue required by this country is increasing beyond all proportion to the increase in population. In the first year after confederation (1867-68) our wants were met by an outlay of $13,500,000. In the fiscal year of 1910-11 our whole public revenue amounted to $117,780,409. But these conditions are world-wide. Great Britain in 1850 raised a revenue of $265,000,000. The budgets of the last three years show an average annual revenue of $855,000,000. In 1850 the revenue of the United States was $40,000,000, while at the present time it stands at more than $700,000,000.

Therefore the increase is general and is no more dangerous to Canada than to other lands. The danger lies in any element of the people shifting its taxes upon others and thus causing a recurrence of the world-old conditions that have ruined empires. It is important above all things that a system be devised whereby people will pay in ratio to their wealth.

Such a scheme has been devised by those who advocate direct taxation. This sounds strong in theory, and no doubt has some commendable features. More attention would probably be paid to public expenditure, and persons might be taxed more justly according to their ability to pay. But taxes would have to be paid at fixed times, which would cause inconvenience.

Indirect taxation has its disciples and during the last fiscal year over $72,000,000 were thus obtained by this country. It is strong in that people pay revenue through the whole year and in small amounts. Even Adam Smith admitted that "the citizen pays them (taxes) little by little as he has occasion to buy goods." But it allows industrial concerns to shift their taxes upon other classes and is a strong factor in the formation of monopolies.

The most satisfactory system is a combination of the two. A large proportion of the revenue may be secured by direct taxes, as in Great Britain, which are derived from income taxes, property taxes, business taxes, stamp taxes, excise, land taxes, and from a variety of minor sources. The rest may be secured from a well regulated revenue tariff upon luxuries with a lessened tax upon necessities.

Scientifically a protective tariff is not required, but experience has proven that for industries to expand as the needs of a growing nation requires, protection is a necessity. But protection should only be given as absolutely required. At the indication of a monopoly taxes should be increased and the tariff lowered to restore the balance. The farmers should also get the benefit of the tariff, but the remedy of the situation rests with themselves. By organizations, which already are being formed in some counties, they can deal directly with the final buyers. These will be explained in a later paragraph.

The control of tariffs and the checking of monopolies are more difficult problems and can only be accomplished by a Tariff Commission. This would be a body of responsible and independent men, similar to the Railway Commission, appointed for life, who would have autocratic powers of control.

An Industrial Commission.

Although so dependent upon each other, no co-operative system has ever been worked out in this country between farmers and manufacturers except in such small industries as butter and cheese-making. Farmers should know just exactly what manufacturers desire, in what quantity, condition and quality it is desired, at what time, and what the supply and demand, and probable prices will be. An effort should be made to have all markets discovered, developed and supplied.

On the other hand, the manufacturers should be well informed as to the condition and kind of crops the farmers are growing, where they could secure raw products to best advantage, and what the farmers' needs are, for different lines of manufactured goods, and how best to extend these markets. A system should be aimed at whereby the two parties would understand and satisfy the wants of each other with as little over-production or under production as possible. This would bring stable prices and prevent the ill-feeling arising from fluctuating prices.

In some lands such a system is already in force. The following is quoted from the report of the commission appointed by the Dominion Government in 1909 to investigate the swine industry of Denmark, Great Britain and Ireland: "With the least evidence of dissatisfaction the farmers are asked to meet the packers to examine for themselves the point at issue. Such meetings are not confined to interviews in which the books are revealed to prove a theory, but the whole question is thrashed out until confidence and harmony are restored. The packers in this exercise good business judgment, as they know well that their success depends on the supply and kind of hogs they are able to get from week to week and from month to month. Co-operation between the two is alike good for the packer and the producer."

All encouragement should be given to co-operative schemes such as a parcels post delivery. Products should be handled with as little delay and expense as possible between the two. The actual handling and commercial dealing should be of a private nature, but to have a system devised that would give these various results, disinterested men must be at the head of affairs. This would necessitate the formation of an Industrial Commission. It should be of the nature of the Railway Commission, and should be given absolute power to examine conditions and to make changes as were deemed mutually beneficial.

TALLMAN BROS. PURCHASE PLANT.

The Tallman Brass & Metal Co., of Hamilton, Ont., have recently purchased the plant and machinery of Lomas & Nelson, Art Metal and Electric Fixture Manufacturers, and will make up electric fixtures from original designs for the fall trade.

NEW BOOK ON SILK MANUFACTURING.

"Silk Manufacturing and its Problems" is the title of a new book written by Mr. James Chittick. of New York, who, as a consulting silk specialist, has devoted much time to its manufacture. The book contains forty special articles dealing with important phases of the manufacture, financing and distribution of silks and textiles. In addition to these articles there is a section devoted to special tables which contains much valuable information for manufacturers. Published by James Chittick, 122-124 East 25th Street, New York.

SAFETY FIRST ON THE GRAND TRUNK.

The Grand Trunk Railway of Canada has begun a campaign for "Safety First" and has engaged George Bradshaw, formerly of the New York Central, as safety engineer. "Mr. Bradshaw," says the vice-president's circular, "will deliver at all important centres lectures on safety and will illustrate practices responsible for injuries. Notice of the time and place of these lectures will be given, and it is desired that every employee on the system whose duties permit shall attend. No employee who considers the importance of his personal safety can afford to miss the opportunity which these lectures will afford to learn something of practical value for the protection of his life and limbs.

"We hope to reduce the personal injury record to the lowest possible point and to make our system the safest in the country. To accomplish this every officer, agent and employee is requested to give his earnest and active support and co-operation."—*Railway Age Gazette.*



"CAN'T TEAZE HIM



By J. E. WALSH

A CIRCULAR has just been issued by the G.T.R. asking the co-operation of shippers to prevent car shortage this fall. The following points are emphasized:

(1) Economical and proper use of freight equipment.

(2) Handling the business in the smallest number of car days: The full free time allowed by car service rules should not be taken advantage of unless actually required.

(3) Load out commodities where feasible in periods of year when there is less liability of car shortage:

(4) One important and practical remedy for shortage of cars is very largely in the hands of the users of cars, for if they will provide larger warehouses, adequate facilities and employ sufficient help so as to give the best possible despatch to the cars handled they will be made quickly available for further use by others who are anxiously waiting for them. In other words, first order only as many cars as can be promptly loaded each day; second, use every effort to load cars quickly and to their full capacity; third, provide adequate facilities and sufficient help to unload cars rapidly.

(5) It is to be hoped that shippers and consignees will not lose sight of the fact that the car supply question is one in the solving of which they can materially assist railways, and that no satisfactory solution can be effected without their hearty co-operation. This we seek to receive.

While this circular is in order, it is directed to shippers, and there is no indication how the railroads intend to assist in preventing car shortage. During the past year, large numbers of cars were delayed through causes for which the carriers were alone responsible. We shall be glad to publish the plans of the railways in this connection.

The following are some suggestions of Mr. F. M. Lucore, Assistant General Manager of the Sunset-Central Lines, which have been put into active use by his railways to avoid delays to freight and to increase the available equipment:

"We secure written orders from shippers on form provided, setting forth the number of empty cars required.

"We place empty cars on definite orders, and keep the remainder in stock. In other words, we are breaking away from the practice of placing empties before they are ordered by the shipper.

"We take empty cars from stations which have no unfilled written orders, and move them to stations which do have such orders.

"We freely accept cars in interchange from connecting lines. If the cars are tendered to us in bad order we repair them. In addition, we advise the delivering line, giving details. This has had the effect of causing the inspection of cars to be materially tightened up before they are tendered to us. Less than three cars in 100 which we receive from connections have to be repaired.

"We urge connecting lines to let us know of each car which we tender to them that is either in bad order, condition, or without proper data for forwarding, in order that we may, in turn, prevent a recurrence.

"We aim to have loaded cars moved through terminals in the order of their arrival.

"We examine the records to ascertain how promptly, on arrival at destination, cars are placed where they can be unloaded. This is no small task, but it pays.

"We cease supplying empty cars with which to handle shipments designed to consignees who are already overstocked with loads which they are unable to release.

"We commend yard clerks, yardmasters, freight conductors, local agents, chief dispatchers and others for good work performed in car handling.

"We have sufficient traveling agents to cover each operating division, and two inspectors of transportation to supplement the work done from the division and general offices.

"In conclusion, everybody on the Sunset-Central lines, from the president down, is a car man."

Commissioner McLean of the Dominion Board of Railway Commissioners has announced that the Board has no jurisdiction over the cartage companies and that the rates upon which they perform the service for the railways are dependent entirely upon contracts over the terms of which the Board has no control.

It will be remembered that the railways gave notice that they would discontinue the cartage service after October 1st of this year. The Canadian Manufacturers Association recognizing the great inconvenience to business such action would cause, negotiated with the railways and assisted in securing an extension of the service without prejudice to any rights of the public. In the course of his judgment, Mr. McLean says: "While the question of long continued custom has been raised as a justification of the further continuance of the cartage arrangement, the Board's power to direct in the matter must be founded on the Railway Act. The Board recognizes that the arrangement has been a convenience; the Board will be pleased if a satisfactory arrangement as between the railways and the shippers can be worked out for a continuance of the arrangement; but the situation is that while the railway may of its own volition enter into an arrangement with cartage companies for the performance of the service on certain terms, the Board has no power under the Railway Act to order it to make arrangements as to these cartage services with bodies over which it has no control whatever. The question of facilities is raised, and it is alleged that the disruption of the present arrangements will mean that there will be inadequate facilities afforded at various terminals. The obligation of the railways to furnish adequate facilities is covered by the terms of the Railway Act, and regardless of any arrangement as to cartage methods, the railway has on it the obligation of providing proper facilities.

"While the approval of the Board has been asked for the proposed tariff, the tariff being a special one is one which does not require the affirmative approval of the Board. The matter is one of urgency, and it is now open to the railways to file tariffs to be effective October 1st."



INSURANCE

E. P. HEATON

THE month of August is usually comparatively free from fire losses, at all events it has been so for several years past. August, 1913, has, however, broken all records and following many other bad months this year, as recorded in this column at various times, the accounts of many fire insurance companies do not afford much promise for a profit on the year's operations. The present condition is by no means good, nor is the future very promising or hopeful.

Apart from the vast number of isolated dwellings, farms and country risks destroyed by forest, bush and prairie fires, a record of which it is impossible to compile, the aggregate known losses for the month of August exceeds $3,000,000. For the first time in the history of Canada the number of fire losses in any one month involving more than $10,000 in each case, has exceeded the half hundred (we have so far recorded 51). The significance of this will be brought out by a comparison with August, 1912, when the number was 11 and the aggregate amount somewhat less than a million dollars.

This regrettable increase in our fire waste has been distributed generally over the entire Dominion, but Montreal and Toronto have been quite conspicuous. The following despatch from Montreal requires no comment:—

"The great increase in the number of fires in the city so far this year over last year is subject of comment by Fire Chief Tremblay. The Chief states that already there have been twenty-one hundred fires to which the brigade has responded to date, against twenty-six hundred fires for the whole of last year. If the present rate keeps up there will be four thousand fires this year. The Chief recommends the taking of extraordinary precautions against this evil, and the building of more fire stations. He also recommends the purchase of a fireboat and the installation of new and extra fire-fighting equipment down town. The Chief has been authorized to engage seventy-five more firemen."

It is no wonder that the various commercial organizations in Montreal which for some time past have had under consideration the problem of the fire waste should have taken a step forward in the advocacy of proceedings along definite lines. As a result of the work of a strong sub-committee, in which the Chairman of the Montreal branch of the C. M. A. has been quite prominent, a proposal has been made that the city should establish a bureau for supervision in fire matters, supported by a corps of fifty men, who should give their entire time and energy to inspection with more or less plenary powers. The following synopsis of the report of this sub-committee is taken from a very prominent position in a recent issue of the Montreal *Star*:—

"A bureau of fire supervision, comprising at least fifty men whose entire time and energy would be devoted to the inspection of property, and who would have authority to enter action against any person violating the provisions enacted to prevent fire, is the recommendation of the sub-committee of the Joint Fire Prevention Committee recently organized by the Board of Trade and affiliated bodies.

"The report just compiled by the sub-committee recommends that this bureau of supervision should be under the direct control of the Fire Department. It also maintains that all matters which have any relation whatever to fire hazard and the safeguarding of life and property, including the installation and maintenance of fire escapes and the enforcement of regulations, should be under the jurisdiction of the Fire Department, as that has better knowledge of conditions than any other branch of the municipal service.

"The report divides the fire hazards into three classes: construction, occupancy and incendiarism. Taking the first feature, it is suggested that the building code being compiled should be submitted to the Joint Fire Prevention Committee before being adopted. In this connection the prevention of the spread of fires by the use of such appliances as metal window frames, wired glass, etc., is referred to. Occupancy covers a large field of hazards. The committee recommends laws to penalize for carelessness by inflicting fines, and, in cases, providing for the loss of insurance policies where negligence is proven. The laws should insist upon cleanliness, and removal of waste and rubbish from the premises every day. The placing of ashes in anything but metal receptacles should be prohibited."

The following are some of the most striking clauses in the above mentioned report:—

"The Fire Commissioners' Court should be placed in a position to co-operate with the Fire Department. It should be given greater authority than it at present has, to make full investigation and impose penalties and effectively administer the law.

"A large number of fires are caused by incendiarism. Many of these are set by persons possessing a mania for the destruction of property, while in other cases over-insurance is altogether responsible. In our opinion it would be wise for insurance companies to enquire carefully into the value of the property they insure, more particularly in respect to merchandise; also that they co-operate with the Fire Department in maintaining the records of all fires and particulars concerning the same."

We regret very much to have to confirm the announcement of the retirement of the Sovereign Insurance Company from business. It has re-insured its outstanding policies in the Phoenix Insurance Company of Hartford, and the policy holders will, therefore, have the added security of a Company of great financial resources and most excellent reputation.

It is generally understood that the "Sovereign" was burned out by losses in the United States which for them became a veritabe sink hole in which many, many thousands of dollars were irretrievably lost. We do not like to see a Canadian company retire from business, particularly one which an ex-president of the C. M. A. has so strenuously endeavored to put on a right and profitable basis.



CUSTOMS



By J. R. K. BRISTOL

BOARD OF CUSTOMS DECISIONS.

THE following Board of Customs decisions were published by the Department of Customs on September 9th, 1913:

(*a*) Tractor hitches and engine guides declared to be dutiable under tariff item 447, and in effect from 5th December, 1912, according to Departmental decision of that date.

Item 447 reads as follows:

"Portable engines with boilers, in combination, horse powers and traction engines, for farm purposes; wind-stackers, and threshing machine separators, including baggers, weighers and self-feeders therefor, and finished parts thereof for repairs, 15% British Preferential and 20% General Tariff."

(*b*) Metal adapted in form and composition for use as nickel anodes, as per sample submitted, declared dutiable under traiff item 358.

Item 358 reads as follows:

"Anodes of nickel, zinc, copper, silver or gold, 5% British Preferential and 10% General Tariff."

(*c*) Basic furnace slag, ground, declared to be dutiable under tariff item 663, and in effect from 9th November, 1913.

Item 663 reads as follows:

"Fertilizers, compounded or manufactured, n.o.p., 5% British Preferential and 10% General Tariff."

(*d*) That fire brick purchased before 13th May, 1913, and entered for duty prior to 13th July, 1913, shall be dutiable under the regulations in force 12th May, 1913, per Bulletin No. 266.

The regulations in Bulletin 266 made fire brick free of duty as being a class or kind not made in Canada when of a quality valued at over $13 per 1,000 at place of export.

In view of the inroads made upon the business of the express companies by the inauguration of the parcel post in the United States, Wells, Fargo & Co. Express is investigating the possibilities of adapting its facilities to the securing of closer relations between producer and consumer. It is proposed to enter into an arrangement whereby city dealers and housekeepers may place orders for household supplies with express agents. These orders will be turned over to farmers to fill, thus establishing a direct link between the customer and the producer, with the express companies serving as middlemen. Rates will be made sufficiently attractive to exploit the enterprise and make it worth while for both producer and customer to deal in household communities in this way.

Although the Wells-Fargo Co. is taking the initiative, it is understood that the other express companies will fall in line if the undertaking is developed. Steps have been taken to circularize the rural communities of the east and obtain expressions of opinion and promises of support from the farmers.

To encourage the movement, it is proposed to provide special packages for shipments. These packages will be equipped with compartments for eggs, butter, vegetables, fruit, etc. In this manner the farmer may keep his customer supplied with a variety of seasonable produce.—*Traffic World.*

"The paper trade of Cuba, like that in stationery and office supplies generally, is also thoroughly known and cultivated by manufacturers of the United States in all its branches, from the 'news' to strawboard, from envelopes to paper bags. There is, however, what impresses me as an attractive opportunity in Havana for some enterprising manufacturer of folding boxes, especially such boxes as are used by our laundries for delivering shirts, and the cheaper, lighter weight of the boxes utilized by tailors for suits. Nothing of the sort is used in Havana or Cuba to-day, and the claim is that freight and heavy import duties bring cost out so high as to forbid importations. Meanwhile tailors and other shopkeepers in Havana use wrapping paper, and as little of it as possible, and one of the prominent tailoring establishments even went so far as to have a delivery wagon built with a large number of drawers. On delivering the goods these drawers were taken out, carried to the door or into the house, emptied and returned to their places in the wagon, thus saving the cost of paper."—*Trade and Commerce Report.*

Total Exports and Imports of the Dominion of Canada for the months of April, May, June and July (first four months of current fiscal year.)

Exports.	1911		1912		1913	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
	$	$	$	$	$	$
The Mine....	11,942,765	76,371	16,584,102	30,875	17,180.468	440,714
The Fisheries	3 894,929	56,288	3.748,436	21,762	5.032,253	24,631
The Forest...	13,254.192	23,037	13,454,078	117,403	14,171,630	83,095
Animals and their Produce ...	14,795,822	245,870	13,620,514	147,310	13,083.234	237,807
Agrculture..	24,453,645	3.483,816	47,221,922	2,293,135	51,622,337	2,501.415
Manufactures	10,327,278	1.956,690	12,658,109	2,555,784	16,051,895	4,831,638
Miscellaneous	35.485	264,904	20,775	802.929	39,175	930,341
Total Mdse..	$78,704,116	$6,106,976	$107,308,936	$5,969,198	$117,180,992	$9,049,641

Imports.	1911	1912	1913
Dutiable Goods.....	$98,184,361	$138,567,026	$149,783,366
Free Goods.....	58,783,019	70,767,020	76,104,436
Total imports.....	$156,967,380	$209,334,046	$225,887,802
Duty collected.....	25,425,808	35,990,061	38,531,767

Exports and imports of coin and bullion not included in above.

The progress of the Underwood Tariff has been:

April 7.—Introduced in House, and referred to Ways and Means Committee.

April 7 to 21.—Discussed in House. Democratic caucus.

April 21.—Reintroduced in House.

May 8.—Passed by House.

May 16.—Referred to Finance Committee in Senate.

June 20.—Reported to Democratic caucus by Finance Committee.

June 21 to July 7.—Discussed in Senate Democratic caucus.

July 11.—Approved by Finance Committee and reported to Senate.

Sept. 6.—Reported to Senate from Committee of the Whole.



LEGAL NOTES



By F. W. WEGENAST

OF considerable interest to manufacturers who transact business in Alberta without becoming registered under the Foreign Companies Ordinance of that Province is the case of Smith v. Western Canada Flour Mills Co. (17 W.L.R. 531), which was recently decided in the Alberta Supreme Court. The defendants in that case, a foreign company, carrying on business in Alberta without registration, became creditors of one Dodge, who, to secure them, transferred land and mortgaged goods to them. The assignee for the benefit of the creditors of Dodge began this action to set aside the transfer and mortgage, on the ground that these transactions were void, since the defendants were an unregistered company, and therefore incapable of carrying on business in the province. After the commencement of the action, and before putting in an appearance, the defendants became registered under the ordinance. The court held that the plaintiff was not entitled to have the transfer and mortgage set aside by reason of the defendants being, at the time the action was begun, an unregistered company. In delivering judgment Chief Justice Harvey said: "The company are by section 10 declared incapable of maintaining an action. Their contracts, however, are not void, but only unenforceable in the provincial courts, while the company remain unregistered, but, upon their becoming registered, their contracts are not only valid but enforceable." The effect of this judgment is to make the Foreign Companies Ordinance of Alberta retroactive; in other words, past transactions in the province which were invalid for want of registration are validated when the company becomes registered.

It appears that Missouri is now adopting a State system of Workmen's Compensation modelled after that of the State of Washington. Mr. F. W. Hinsdale, Auditor of the Washington State Industrial Commission, who appeared some months ago before the Ontario Commissioner on Workmen's Compensation, gave evidence recently before an investigating committee of Missouri State and described the operation of the Washington State system on its actuarial side. While the Missouri committee has not yet tabled its report, we are informed that it was most favorably impressed with the evidence of Mr. Hinsdale and other advocates of state insurance. Since the States of Washington, Ohio, Oregon and California have already adopted state insurance plans of compensating industrial accidents it is apparently a mere question of time before the rest of the states of the American Union follow suit.

An employee in charge of a garage in which an automobile had been left for repairs took the automobile out after it had been repaired for the purpose of testing it, and also to bring home a customer of the garage, who had brought his automobile there for repairs which could not be made on that day. In the course of the trip the automobile was negligently wrecked. The Supreme Court of Kansas held (Roberts v. Kinley) that though the trip to the house of the customer was longer than was necessary to test the automobile, the employee could not be regarded while out on the trip as having been acting outside the scope of his employment, and that the garage keeper was therefore liable for the wrecking of the automobile.—*Bradstreet's.*

An interesting case recently came up for hearing at Rock Island before Mr. J. F. Telford, J.P. It was stated that the Stanstead Quarries Company of Bebee had brought a number of granite cutters out from Great Britain this spring; most of them had their fares advanced by the Company on the understanding that the men were to repay the advances at the rate of some two or three dollars weekly, and were to remain with the Company until all advances were repaid in full.

Two of these men went off after working only a couple of weeks, and neglected to make any arrangements with the company as to the money advanced. The result was that warrants were issued for their arrest.

At the trial, representatives of the Company stated that they did not wish to have the men severely punished, but desired to be protected against such practices in the future. Mr. Telford, considering the plea of the Company not to be too severe, thought that justice might be met by a sentence of $20 and costs, or sixty days' imprisonment, the sentence to be suspended during good behaviour.

The methods employed by some of the immigration officials are illustrated in a recent case on *habeas corpus* proceedings before Mr. Justice Graham of the Nova Scotia Supreme Court. A steel plate engraver named Gardner had arrived at the port of Halifax with $36.00 absolutely his own. When asked by the immigration officer whether he had any money he produced $21.00, and told the officer that he had more and if they would wait a few minutes he would find it. The officer paid no attention to his statement, but a few minutes later the man produced three gold sovereigns from his waistcoat. Notwithstanding this the officer certified on the immigration fund that the man had been rejected for "Lack of funds, required to have $25.00, but had only $21.50." The man had in addition to his cash a written contract engaging him at his trade at $22.50 a week, yet he had been ordered deported as an "undesirable"!

The Industrial Welfare Commission of Oregon has recommended that all women workers in manufacturing establishments receive a minimum weekly wage of not less than $8.64; nine hours a day, or 54 hours a week to be the average maximum employment. This recommendation is made as a result of the passage of a compulsory minimum wage law for women, adopted at the recent session of the Legislature.



VIEWS OF THE NEW C.P.R. SHOPS AT OGDEN, NEAR CALGARY

The Canadian Pacific Railway hs recently put into operation near Calgary, Alberta Province, Canada, a large shop plant of more than ordinary interest by reason of its size, its complete and modern character, and the speed with which it was created.

The work was designed and built in its entirety by Westinghouse, Church, Kerr & Co., consulting and constructing engineers, of Montreal and New York, working under the direction of Mr. J. G. Sullivan, Chief Engineer of the Western Lines of the Canadian Pacific Railway, and Mr. N. E. Brooks, Division Engineer.

The shop location is at Ogden (named in honor of a Vice-President of the railway), and is 4½ miles from Calgary, and about 2,250 miles from Montreal.

The shops consist in general of: Main locomotive shop (including erecting, machine, blacksmith and boiler shops); tender and wheel shop; pattern shop and pattern storage; foundry; storehouse and office building; material platforms and scrap dock; oil house; coach repair and paint shop; freight car repair shop; planing mill; boiler and compressor house; 1,260-ft. yard crane; miscellaneous structures, including transfer table and pit for coach shop, mess hall, driven wells and water tower, all service systems, such as drainage, sewage, fire protection, water supply, etc.

The Fellows Direct Power Transmission and Intermittent Grip. Canadian Patents 130314 and 130315 January 10, 1911, and 135893, 135894, 135895 135896 October 3, 1911, is now manufactured for the Canadian market by Vancouver Engineering Works, Ltd., Vancouver, B.C., to whom enquiries should be addressed.

THE IMPORTANCE OF FACTORY LIGHTING

BY H. M. FLEXNER AND A. O. DICKER

From a paper read before the Seventh Annual Convention of the Illuminated Engineering Society, at Pittsburgh, September 22-26

GOOD factory lighting is not beyond reach; it is not something that one can only wish for. It is a material thing and may be had for the asking.

A great many bad installations can be made good ones by two inexpensive methods; either re-locating the units and the addition of proper reflectors, or in some cases by replacing existing units with some of the modern efficient type now on the market. It is not hard to show that the new system will, within a given time, pay for itself, and in a great many cases save money over the operating and maintenance expenses of the old system.

Assume that the owner of a factory depends solely upon the profits of the work his employees turn out. An equation expressing output must involve the personal equation of the men and there must be a certain personal efficiency of each man under every condition in which he works. If a high-priced man is placed under poor working conditions his work will be no better than the low-priced man under good conditions. A manufacturer will usually buy a labor-saving device or a machine with which his workers can turn out more or better work, and he will supply his employees with tools of the highest grade steel and have men to keep these tools in the very best condition; but he often absolutely ignores the personal efficiency of the operator and the conditions under which he must work. He does not usually see all the methods of making the man as perfect as his tools. In other words, more time and thought are given to the tools than the operator. What good is a perfect tool or machine if the operator can hardly see what he is doing with it? This sounds ridiculous, of course, but it is true of many a factory to-day. For instance, a manufacturer purchased a certain machine at a cost of $18,000.00 and paid a high-priced man of long experience to operate it. Yet this owner could not see his way clear to spend $19.00 in order that this high-priced operator would not have to take the product twenty feet away to the window to caliper it. This shows how little the owner considered the personal efficiency of his men.

The Small Cost.

The cost of illumination as compared with an operator's salary is very small and insignificant; in fact, so small that the manufacturer can not see it at all. The following data, taken as average conditions, shows this.

If a 100-watt lamp is assumed for each man and that it burns 3½ hours per day for 300 days, the following is derived:

Cost of lamp (Commonwealth Edison Co. renewal)		$0.00
Cost of reflector		1.00
Cost of wiring per outlet		4.00
Total first cost		$5.00
Interest on investment 6%	$0.30	
Depreciation at 12½%	0.70	
		$1.00
Power at 5c.		5.00
Cleaning at 3c. per mo		0.36
Renewal of lamps		0.00
Total		$6.36

Wages for 10 hours a day, 300 days, may be assumed to be $1,000.00. Thus the ratio of the cost of furnishing illumination to a man under the above conditions would be (overhead expense not included), $\frac{6.36}{1,000}$, or 0.636 per cent.

What it Means.

The following mathematical deduction shows what good lighting would mean to a factory upon the installation of such a system. Taking an area of 30,000 square feet with an average of 0.75 watt per square foot, a connected load of 22,500 watts would result. Figuring the installation with 250 watt units, an estimate of the first cost is surprisingly low:

90 250-watt outlets at $3.50	$315.00
90 fixtures at $1.25	112.50
90 reflectors at $1.00	90.00
90 lamps (Com'wealth Edison Co. renewal)	0.00
Total	$517.50

Let it be supposed that this factory turns out a yearly business of $250,000 and that 33⅓ per cent., or $83,333.33, of of this business is done under artificial light. Assuming a conservatively 5 per cent. increase in output as the benefit due to good lighting, the business is then increased $4,166.67. If there is a profit of 20 per cent. on this output a credit of $833.33 is derived, which is considerably more than the installation cost.

Cost of Operation Low.

As further proof of the low installing and operating costs of good lighting the following data are submitted from a table compiled from actual figures on three trial installations in a large factory with lamp prices, etc., revised so as to be up-to-date.

100-Watt Tungsten Lamp.

30 reflectors at 92c.	$27.60
Wiring at $3.22 per outlet	96.60
30 lamps at 0.72	21.60
Total	$145.80
Interest on investment at 6%	$8.75
Depreciation on reflectors at 12½%	3.45
Depreciation on wiring, etc. at 5%	4.83
Renewals at 30 × 900/1000 hrs. × 0.621	16.77
Energy 3000×900 hrs. × 1.1 c.	29.70
Labor (cleaning 30×0.63×20 c.)	3.78
Total annual cost	$67.28

These figures are derived on the assumption that good factory lighting will necessitate a 100-watt lamp for 100 square feet of working area required by an ordinary workman. With these assumptions the following information has been tabulated:

Total working hours 300×10	3000 hours
Total lighting hours 300×3⅓	1000 hours
Average cost of labor per hour	35 cents

Labor—		
3000 hours at 35c.		$1050.00
Light—		
Cost of 100-watt tungsten lamp (Commonwealth Edison Co. renewal)		$0.00
Cost of metal reflector (trade price)		1.00
Average, cost of wiring per outlet		3.50
Initial investment per outlet		$4.50
Interest at 6% on $4.50	$0.27	
Depreciation at 12½% on $4.50	0.56	
		0.83
Cleaning 12 mo. at 3 c.	0.36	
Lamp Renewals (Maintenance)	0.00	
		0.36
Energy 100 K. W. H. at 5 c.		5.00
Annual operation cost		6.19
Annual wages for one man		$1050.00
Cost of light in per cent. of wages		.59

When reduced to cost per hour based on 3,000 working hours per year, one finds:

Labor per hour	$0.35
Light per hour	0.00619
Cost of light per day	0.02063
Cost of labor per day	3.50

Good Man Needs Light.

These figures go to show that the cost of good lighting is a very small portion of the cost for a man's time; in fact, if good lighting would save five minutes of a man's time per day a material gain would be experienced.

By following this form, any local conditions causing different prices than those given can be substituted so that a comparative figure can be obtained for any particular locality.

The cost of maintenance of tungsten lamps and reflectors is stated as follows in vol. 1 of the 1911 *Proceedings* of the National Electric Light Association.

	Per cent.
Renewals of lamps	75
Renewals of broken reflectors	3
Labor making renewals	0
Changing reflectors for washing	16
Labor for washing reflectors	2
Additional indirect charges	4
	100

This data is from experience with an installation of between 7,000 and 8,000 lamps and reflectors.

With the available units, it is impossible to pick out one lighting unit and say that it can be used for all conditions. There is no one cure for all evils. Individual conditions enter into the problem and the resulting unit must be best for the conditions presented. The most important qualifications are the following: Efficiency; color; quality; arrangement of machines—processes; adaptability; special architectural features; and available hanging height.

What is Best Unit?

The best unit to use will be the one that best fulfills these requirements. Each light source, whether gas arc, individual gas, electric incandescent, arc or vapor lamps, has its definite field in factory lighting. Usually where one should be used the others will be less satisfactory. It is hard to convince the owner that the cheapest is not the best, for he usually wants light only, and often will not pay for the necessary equipment to produce illumination. The problem of which one to use depends upon the class of work to be done under it, as each lamp has certain characteristics that argue for and against its use.

The last few years have brought great developments in the arc lamp. The flame arc of long life furnishes a light source of high candle-power and low maintenance cost. When the white light-giving carbons are used the light emitted is of good but rather variable color. This lamp should never be used in the normal range of vision. It is best adapted to factories with high ceilings, as the intrinsic brilliancy of this light source is 5,000 candle-power per square inch.

There has been considerable talk about the harmful ultra-violet rays emitted from arc lamps. These rays are no doubt given off to a considerable extent, but they are lost in the inner globe. Therefore this characteristic should not be an argument against the arc lamp. The greatest objection to this light source is its unsteadiness, and for fine accurate work a more steady unit might better be used.

Value of Mercury.

The mercury-vapor lamps are particularly well adapted to certains kinds of manufacturing. The peculiar color, together with the high visual acuity, renders them very useful. A large clothing manufacturing concern has recently replaced enclosed arcs with vapor lamps in pressing rooms. It is remarkable the way scorching can be detected under this lamp, while if a tungsten lamp is used the scorch is not so noticeable. The vapor lamp has met with decided approval in this kind of work. This goes to show that the unit used should depend entirely upon the work to be done.

In installations where the tungsten lamp is the source of light, too much emphasis cannot be put on the subject of cleaning. The manufacturer would not allow his operators to leave their machines at night without cleaning them; the floors are cleaned and each morning the factory is found in tip-top shape. Why? So that the work may begin under the best conditions, all working toward an increase of output. In other words, everything but the lighting equipment is systematically taken care of. The owner knows that the time and money spent in cleaning a machine is well spent, and yet that which has a greater effect on the efficiency of the operator is left to accumulate dirt from day to day and in many factories from month to month.

Light From Above.

In general, it is best to have the light source as high as possible above the working plane. If it is out of reach of the worker, he cannot handle it and thus it will be free of a coating of oil or other dirt. Truly enough, certain machines require drop cords in setting up the work or changing the dies, but few machines actually need drop cords during their operation. One big railroad shop in Chicago has adopted Cooper-Hewitt lamps for general lighting, and drop cords are checked as any other tool. In this way they are taken care of and are not used except when necessary. It has been our experience that the worker will use a drop cord as long as he has one in front of him.

The first move for efficient lighting is general illumination, where possible, doing away with the drop cord or, as above stated, making the drop cord a working tool.

There are many combinations of efficient lighting systems; in fact, it is a subject of its own, so that we will not attempt a discussion.

Realizing the general disregard of good lighting as a necessary and important part of the factory equipment, and

not overlooking the attractive lighting load of this class of service, the Commonwealth Edison Co. of Chicago decided to make a proposition covering lighting installations for factories.

As has been stated, the first cost of the installation is too often the only obstacle, and therefore this company decided that the first way to make such a proposition attractive was to do away with the first-cost. To insure most efficient operation the company includes in this proposition the cleaning and renewing of all fixtures and lamps.

Edison's Plan.

The Commonwealth Edison Company's proposition is as follows:

The customer is asked to sign a contract for a period of twenty-four consecutive months. After the expiration of this period, the wiring and fixtures become the property of the consumer.

The charges for this service are made up on the following basis: rental charge, maintenance charge and electricity charge.

Rental Charge.—The rental charge is twenty-five cents per fixture per month, allowing the consumer to use either 100, 150 or 250-watt units in each fixture. At the end of the two-year period this equipment becomes the property of the consumer and this charge is discontinued.

Maintenance Charge.—The consumer pays the company twenty-five cents per fixture per month, except during the months of June, July and August. At the end of the two-year period, the consumer may elect to discontinue paying this charge and take care of this equipment himself.

Electricity Charge.—For this service the consumer pays our regular Schedule A rate, which is ten cents net per kilowatt hour for the first thirty hours use of the maximum demand per month and five cents net per kilowatt hour for all energy used in excess of this amount.

The fixture supplied under this contract is one that was especially designed for this class of service. It consists of a shallow reflector with a collar containing a lock socket; the conduit serves as a stem. The reflector is so designed that the filament does not extend below the bottom of the reflector. Photometric curves show extensive characteristics. The idea throughout was to make a reflector that was efficient, plain, and easily cleaned.

The Commonwealth Edison Company confidently expects to install 10,000 of these fixtures within the next year, and a report of the first few months gives reason for the confidence expressed.

In summing up we believe that the campaign for good factory lighting has just begun and that the best argument in favor of better illumination is a statement showing the benefits derived from an efficient lighting system and the experiences of others.

No Excuse for Poor Light.

Even a hasty reconsideration of the arguments presented in this paper demonstrates the tremendous scope and possibilities along this line. There is no longer any excuse for poor lighting; the necessity, the practicability, and the economy of good illumination have been demonstrated beyond question, and if the strides in this direction which have been made in the recent past may be taken as an index of those which will be made in the future, there is no doubt that very soon the time-worn phrase "a badly lighted shop" will have disappeared from the vocabulary of those connected with the lighting industry.

We believe that if a fair and broad-minded manufacturer will but figure out in a common-sense way the merits and necessity of good illumination, he will be converted to its use in a short time. If his own figures do not satisfy him, let him consult those who have been far-sighted enough to go ahead with his better sense dictation and be shown, if necessary, the truths of the above assertions. He will realize sooner or later the needs of his men—better atmosphere, lighter and cleaner shops, and proper illumination.

TRADE DISPUTES RECORD SHOWED DECREASE.

There was a considerable decrease in the number of trade disputes in Canada during August, as compared with the number during the previous month and corresponding month of last year. There were also fewer employees involved and fewer working days lost than during July. A partial settlement of the strike of miners on Vancouver Island was effected during August when an agreement was reached between the Vancouver and Nanaimo Coal Company and its employees. In other respects the dispute continued and considerable disturbance occurred within the area of the industrial strike. During August a strike of about 2,000 salmon fishermen occurred on the Fraser River, but lasted for two days only. With the exception of this only two disputes commenced during August, affecting more than 100 employees. The Department's record shows that 6,896 employees were affected by disputes during August, as compared with 8,124 during July, and 9,500 during August, 1912. The number of working days lost during August was approximately 109,520, compared with 188,867 working days lost in July, and a loss of about 106,000 during August, 1912. Nine disputes actually occurred during August.

Cost of Living Still Tends Upward.

Wholesale prices moved upward again during August according to the Department of Labour's record, though only to a slight degree. The index number for 270 articles was 136.2 compared with 135.9 in July. In August a year ago it was only 133.3. The advance was due to higher prices in grains and fodders, eggs, potatoes, wool, jute, calfskins, lead and anthracite coal. At the same time there were somewhat lower prices for cattle, beef, butter, trout, whitefish, coffee, spelter, benzine, rubber and a few other articles. Comparing the month with a year ago, the chief increases are among animals and meats and the chief decreases among grains and fodders. In retail prices there was a general advance in eggs and butter and in certain meats. Rents were down somewhat sharply in several western cities, but were firm to upward in the east.

OCCUPATIONAL DISEASE LAW.

Under heavy penalty for failure, the Missouri Occupational Disease Law, which recently became effective, and which applies to all industries wherein any poisonous chemicals, minerals or acids are used, or injurious fumes or gases generated, requires employers to have their employees examined regularly once a month, and physicians making the examinations to report all cases in which occupational diseases are found. Employers must provide shower baths, a locker for each employee, sufficient hot water and individual towels and soap, also respirators for those engaged in any work producing poisonous dust. Rooms apart must be provided for meals, drinking fountains must be protected, and employees are required to wear suits other than those they come and go in while at work.

The Burlington Windsor Blanket Co., Limited, of Windsor, Ont., will locate in Toronto.

THE WAY TO REACH THE MAN.

The *Coal Age* is one of John Hill's Magazines. Berton Braley has verses entitled "The Secret" in a recent issue, thus:

The way to reach the man who toils
Amid the dingy workings
Is not by stratagems and spoils
Or oily smiles and smirkings.
You give him model homes and such,
Or clubs in which to revel,
You still will find yourself in "Dutch,"
Unless you're on the level.
It isn't coddling that he likes,
Or lordly condescension.
You must be fair and square and just,
A man among your brothers,
Before old doubtings turn to trust
Or ancient hatred smothers.
Whatever motive yours may be,
In time he's sure to find it,
He looks through every deed to see
The spirit that's behind it.
And though he may misunderstand,
Repel, at first, and doubt you,
He'll warmly grasp the proffered hand
When he is sure about you.
The boys within the breaker shed,
The miners deep below them,
Are slow of faith and hard of head;
You've simply got to show them,
And prove your varied aims and ends
Are not those of the devil—
For man and master can be friends—
If both are on the level.



New Canadian Fairbanks-Morse Factory.

The new building to be erected by the Canadian Fairbanks-Morse Company Limited, will be situated at the south-east corner of St. Antoine and Ste. Cecile Streets, Montreal. The frontage on St. Antoine Street will be 93 feet 5 inches, and on Ste. Cecile Street 144 feet 5 inches.

CANADIAN GENERAL ELECTRIC.

Takes Over the Stratford Mill Building Co.

The Canadian General Electric Company, Limited, have just acquired by purchase all the plant and assets of the Stratford Mill Building Company, at which plant in future will be manufactured not only lines of flour mill machinery heretofore manufactured by the Stratford Mill Building Company, but also the wider range of machinery and equipment as produced by the Allis-Chalmers Company.

Mr. William Preston who has been the president of the Stratford Mill Building Company will continue to be actively identified with the flour mill machinery business as Manager of the Flour Mill Machinery Department of the Canadian Allis-Chalmers Company.

Some time since the Canadian General Electric Company Limited acquired by agreement with the Allis-Chalmers Company of the United States the right to manufacture and sell exclusively in Canada their various lines of manufacture. The Canadian General Electric Company, Limited, at their various works have sufficient equipment for manufacturing most of the apparatus for which these rights were acquired, such as hydraulic machinery, saw mill machinery, mining machinery, etc., but had no equipment for the manufacture of flour mill machinery, grain elevator equipment, etc., such as manufactured by the Allis-Chalmers Company.

CANADIAN FURNACE CO. AT PORT COLBORNE.

The Canadian Furnace Co., Ltd., opened their great plant in Port Colborne, Ont., on Sept. 27th. Special trains were run from Ottawa, Montreal, Toronto and Buffalo, and luncheon was served for 600 guests. The plant cost about $750,000, and will employ at the start 200 men. The Company will manufacture foundry, malleable and Bessemer iron, and will engage later in the manufacture of basic iron. Their estimated annual output will be 125,000 tons per year. Mr. Frank G. Baird, President of the Buffalo Union Furnace Company, with which the Port Colborne plant is connected, deserves great credit for the enterprise he and his associates displayed in establishing their splendid industry in Canada.

THE ROAD.

I sing you an ode,
Of the country road,
The lumpy road
And the bumpy road,
That jolts the wagon and spills the load,
Mud to the hubs when the rain comes down,
Filled with ruts when the fields are brown
And the sun is hot and the air is dry.
It's clogged with gravel and packed with sand,
So built and graded and laid and planned
That it takes a team,
And sometimes two,
To do the work one horse should do.
It racks the wagons with jolts and jars,
It ruins horses and motor cars,
Keeps back crops from the market place,
Piles up debt on the farmer's place—
The old time road is a plain disgrace.
But the modern road is a different thing,
A worthy theme for the bard to sing:
Put together
For every weather,
Smooth and dustless and good to see,
And graded right, as a road should be;
Useful always and muddy never,
A thing of beauty—a joy for ever.

—Berton Braley, in Bellefontaine (O.) *Examiner*.

THE PULP AND PAPER INDUSTRY OF CANADA

BY JOHN F. SWEETING IN "CANADIAN PROGRESS"

THE Western Prairies and the interior and eastern parts of British Columbia are yet without a paper or pulp mill. Approximately 3,500 carloads of paper of all kinds passed into and through the city of Winnipeg during the year 1912 for use in Western Canada.

Canada's paper and pulp mills are situated in the East and extreme West, Quebec, Ontario, Nova Scotia and New Brunswick, while on the Pacific Coast of British Columbia two mills are operating.

For the fiscal year ending the 31st of March, 1913, Canada imported paper and manufactures of paper, valued at $8,347,381, of which $1,804,158 came from the United Kingdom, and $5,743,103 from the United States.

The 48 active mills in 1912 consumed a total of 866,042 cords of raw material valued at $5,215,582, the total cut of Canada being 1,846,910 cords, valued at $11,911,415, so that $980,868, or more than half the total was exported manufactured to the United States. In other words Canada exported enough pulpwoods to supply 54 mills of the average capacity now operating, and for the quantity of cordwood exported the owners received $6,695,833, whereas, had the 980,868 cords of pulpwood been manufactured in the Dominion it would have produced approximately 773,140 tons of pulp which as the average price per ton of exported wood pulp in 1912 was $17.10, it would have realized $13,220,684. The actual price received was $6,695,833, showing a loss to the Dominion (which would include profit to the manufacturer and the cost of converting the material into pulp) of $6,524,866, and undoubtedly this cost of manufacture, in the form of wages, material, etc., would be a source of wealth to the country in general.

The fact that in addition to spruce, balsam, fir, hemlock, poplar, larch and pine are now being used in the manufacture of paper adds largely to the area in which suitable woods are found for this industry.

In the interior and eastern parts of British Columbia, and more especially along the lines of the Canadian Pacific Railway through the Crow's Nest Pass, as well as in the central parts of Alberta, Saskatchewan and Manitoba, there are large areas of suitable timber available. In addition to which there are nearby water powers and railway transport to make easily obtainable suitable locations for mills and economic methods of handling both the raw material and the finished product.

The world's consumption of paper yearly is estimated at 8,000,000 tons, of which it is stated 6,500,000 tons are made from wood (21,670 tons per day), requiring 9,750,000 cords of wood per year, which at eight cords per acre would denude 1,900 square miles per annum. It is suggested that at the present rate of consumption Canada could supply the world for about two hundred years, without giving any consideration to the new growth or reforestation.

The cheapest method of production and the one which eliminates practically all waste is by combining the pulp and paper mill with the saw mill, thus adding to the value of the export lumber the paper produced and the large part of fuel necessary to operate the mill. After all it is the by-product which often produces the largest revenues, and it is in the interest of sane conservation that however prolific the natural product may be, the saving of waste is but adding value to nature's gift and increasing the wealth of a community.

The West so far appears to have been sadly neglected by the capitalist and manufacturer in this respect. With the continuation of only normal growth in population it can readily be seen that a large and increasing market is developing for paper and its various manufactures. Even with the cessation of the present export of the raw product millions of dollars annually would be earned in the country, but to that must be added the fact that by far the larger area of the Dominion has not yet even been investigated for this particular purpose.

In Western Canada there are over 550 daily and weekly newspapers and magazines published with a daily, weekly and monthly circulation of over 1,000,000 copies. The construction of new railroad lines continues at the rate of 1,000 miles or more per annum (branch and main lines), and new towns are opened up at the rate of 150 to 200 each year. The larger proportion of these towns grow into the newspaper stage at a very early date. The demand for paper of all kinds within the next ten years will be enormous, and should be the means of supporting a large number of paper mills, as well as building up thriving communities.

Western Canada has the wood and the water powers, it also has the rivers and streams for driving the logs, and means of transportation by rail is getting more efficient and easy of access year by year. Pulp and paper can be produced as economically in the West as in any other part of the Dominion. It is an industry which will stand the fullest investigation. The market's demand is incessant and growing yearly by leaps and bounds, assuring a ready sale for the product of many mills and a lucrative investment to the capitalist as well as incalculable additional wealth to the Dominion.

PRODUCTION OF BEET SUGAR IN CANADA.

From the three sugar beet factories at present in operation in Canada there was produced during the sugar-refining campaign of 1911-12 from Canadian grown sugar beets a total of 22,157,155 lbs., or 11,078 short tons of beet root sugar, as compared with 20,612,276 lbs., or 10,306 tons in the previous campaign of 1910-11. The three factories are situated at Wallaceburg and Berlin in Ontario, and at Raymond in Alberta.

DONT'S FOR MACHINISTS.

Don't screw nuts on bolts hard enough to strip threads.

Don't leave chips of emery or brass in your eyes over night.

Don't strike highly-tempered steel with a hammer.

Don't work on shafts resting on horses without blocking them.

Don't pour babbitt without wearing goggles.

Don't use your hand to throw off a belt; use a stick.

Don't use a file unless it has a handle.

Don't fail to stand toward the headstock of a lathe when filing.

Don't fail to securely fasten work under a drill before drilling it.

Don't fail to use your "Danger, Do Not Move" sign.

Don't start a job until you have everything ready to finish it.

Don't remove gear covers and other safety appliances and fail to replace them.

Don't try to work and talk to somebody at the same time.

Safety Engineering.

UNITED STATES MANUFACTURERS DECLARE PRINCIPLES.

The following principles were adopted at the eighth annual convention of the National Association of Manufacturers, New Orleans, Louisiana, April, 1903:

The National Association of Manufacturers of the United States of America does hereby declare that the following principles shall govern the Association in its work in connection with the problems of labor:

First.—Fair dealing is the fundamental and basic principle on which relations between employees and employers should rest.

Second.—The National Association of Manufacturers is not opposed to organizations of labor as such, but it is unalterably opposed to boycotts, blacklists, and other illegal acts of interference with the personal liberty of employer or employee.

Third.—No person should be refused employment or in any way discriminated against on account of membership or non-membership in any labor organization, and there should be no discriminating against or interference with any employee who is not a member of a labor organization by members of such organizations.

Fourth.—With due regards to contracts, it is the right of the employee to leave his employment whenever he sees fit, and it is the right of the employer to discharge any employee when he sees fit.

Fifth.—Employers must be free to employ their work people at wages mutually satisfactory, without interference or dictation on the part of individuals or organizations not directly parties to such contracts.

Sixth.—Employers must be unmolested and unhampered in the management of their business, in determining the amount and quality of their product, and in the use of any methods or systems of pay which are just and equitable.

Seventh.—In the interest of employees and employers of the country, no limitation should be placed upon the opportunities of any person to learn any trade to which he or she may be adapted.

Eighth.—The National Association of Manufacturers disapproves absolutely of strikes and lock-outs, and favors an equitable adjustment of all differences between employers and employees by any amicable method that will preserve the rights of both parties.

Ninth.—Employes have the right to contract for their services in a collective capacity, but any contract that contains a stipulation that employment should be denied to men not parties to the contract is an invasion of the constitutional rights of the American workman, is against public policy, and is in violation of the conspiracy laws. This Association declares its unalterable antagonism to the closed shop and insists that the doors of no industry be closed against American workmen because of their membership or non-membership in any labor organization.

Tenth.—The National Association of Manufacturers pledges itself to oppose any and all legislation not in accord with the foregoing declaration.

"ABOLISHING THE CAPITALISTS."

The Unions are constantly taught by their socialistic leaders that their true interests lie in "abolishing the capitalist class"—this advice always being printed in capital letters. Argument on the question is wasted. Puddings should be proved by eating them. Let them, therefore, go to some unoccupied land, take a few capitalists with them to give them a start, and then see how long they will last out after having squeezed the capitalists dry. It looks a much easier task, of course, to take possession of a prosperous and wealthy community; kick out all the capitalists, and run it as a going concern. But even here there would be difficulties. Recent and even present experiences show that the least shortage in available capital has an immediate effect upon the prosperity of the community, and that the working man always suffers first in the loss of his employment. What the state of things would be like if all capital were withdrawn—which would happen at the first hint of any socialistic revolution—can scarcely be described. It would be something like the eruption of a volcanic mountain in the midst of the community.—*Liberty and Progress.*

DEMOUNTABLE RIMS SAVING TIRE EXPENSE.

With the advent of Demountable Rims, which enable the Car Owners to carry a spare tire already inflated to replace any tire that has been punctured or otherwise injured, the percentage of tires ruined through owners driving on deflated tires has very materially decreased.

In a little Booklet recently issued by the Goodyear Tire Company it is stated that driving an Automobile on a flat tire is the most expensive form of locomotion yet discovered.

There is really no excuse for any Motorist operating a car with a deflated tire now that the process of replacing the tire is so simplified by the advent of the Demountable rims.

Some Automobile Owners believe that the stright wall class of tire will not be injured through driving it flat; but the Goodyear people state that although driven flat the Goodyear No-Rim-Cut Tire will not rim-cut—at the same time no Tire manufactured can stand the grinding of an iron wheel over the pavement on the fabric and rubber.—Advt.

TORONTO HARBOR DREDGING AWARDED.

The Board of Harbor Commissioners of Toronto have awarded the contract for dredging the harbor to the Canadian Stewart Company of Montreal. The successful tender approximated $5,500,000.

The following is a list of the tenders received by the Commission:—

Tilbury Dock & Dredging Company, London, England, 24½ cents per cubic yard, $7,521,500.

Sir John Jackson, London, England, 20½ cents per cubic yard, $6,293,500.

Pearce & Company (Incorporated), London and New York, slightly over 20 cents per cubic yard, approximately $6,000,000.

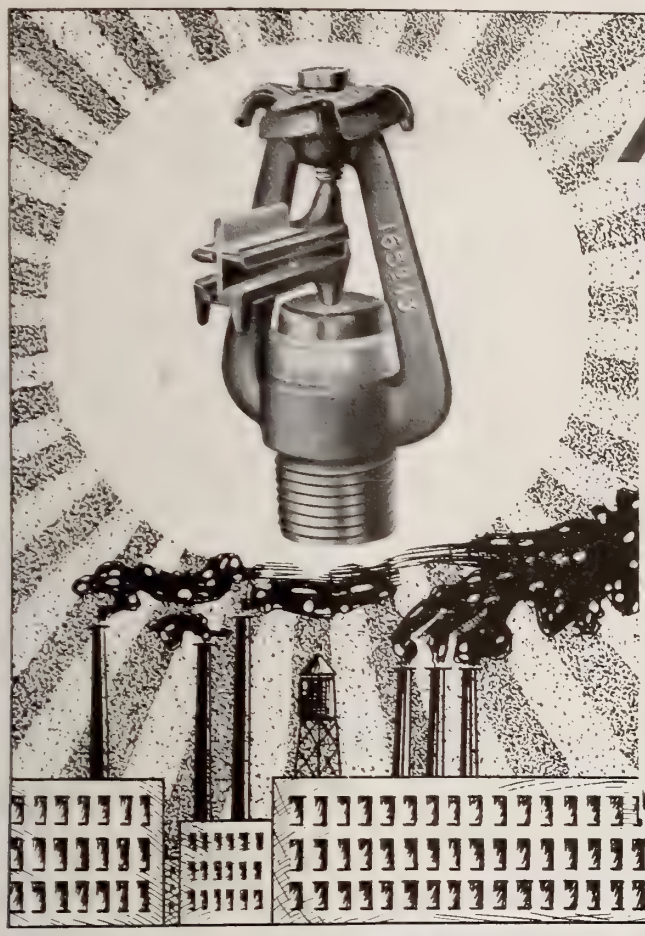
Sherman, Stalter Company, New York, tendered on a portion of the work, slightly over 20 cents per cubic yard.

Canadian Stewart Company, Montreal, 19½ cents per cubic yard, $5,500,000.

The total number of cubic yards to be dredged is slightly less than 30,700,000. The work will be commenced about March, 1914, and will take eight years to complete. The successful tenderers will have to construct two new dredges, which will be amongst the largest in the world.

It is gratifying to notice that this great contract will be undertaken by a Canadian company at a lower price than British and foreign competitors.

The Bay of Quinte Wood Company, Limited, was recently incorporated with a capital of $500,000, with head office at Toronto. The company will manufacture and deal generally in timber, lumber and wood of all kinds.



PROTECTION Against Fire!

A carelessly thrown match or cigarette, an over-heated bearing, spontaneous combustion or an incendiary have no terrors for the manufacturer whose plant is protected by

MANUFACTURERS' AUTOMATIC SPRINKLERS

The smallest blaze is extinguished before it can make any headway, and, night and day, absolute protection is offered.

As an investment Manufacturers' Automatic Sprinklers are gilt-edged because they save their cost in three to five years in the saving in insurance premium they effect.

The General Fire Equipment Co.
Limited
72 Queen Street East Toronto, Canada

SCARFE & COMPANY

—Makers of—

FINE VARNISHES FOR MANUFACTURERS

Factory and Head Office
BRANTFORD

WAREHOUSES
MONTREAL—472 Delorimier Ave.

WAREHOUSES
WINNIPEG—80 Lombard St.

AGENT WANTED.

Agent or Sales Manager, with good experience in the chemical business, wanted, from German exporters and importers of heavy chemicals, fillers, etc., to establish Canadian branch. Address.—INDUSTRAL CANADA.

SITUATION WANTED.

Gentleman requires position as Company Secretary, Accountant or Office Manager, preferably with a Manufacturing Company. Qualified for Company or Public Body Secretaryship by exams. of the Chartered Institute of Secretaries, London, Eng. Age 29. Married. Has had 14 years' commercial experience with manufacturing companies, including 15 months in Toronto with manufacturing and financial companies. Accustomed to control of staff. Thoroughly experienced in up-to-date methods. Excellent references. Address C. D., *Industrial Canada*, C.M.A., Toronto.

TRAFFIC CLERK WANTS POSITION.

Young man wishes position as private secretary, with prospects of advancement. Experienced in railway and financial work and has knowledge of shorthand and typewriting. Best of references. Address A. B. C., INDUSTRIAL CANADA office, Toronto.

A contract has been awarded to Benson & Bray, Limited, Midland, Ont., for sashes, doors, etc., amounting to $7,000, for C.P.R. buildings on Ontario division.

The sawmill belonging to The McLaren Company, Bout De L'Isle, Qu., was recently destroyed by fire. The loss amounted to $50,000. The company will rebuild.

The sash and door factory belonging to Ferland Bros., at L'Epiphanie, P.Q., was destroyed by fire recently. The loss amounts to about $25,000. Owners will rebuild.

HOW FIRE LOSSES CAN BE REDUCED.

State Fire Marshal of Indiana Quotes Conditions in European Cities.

The State Fire Marshal in line with his effort to bring about better construction of buildings in Indiana is mailing to his 1,500 assistants in that State a printed excerpt from a statement made by Mr. Richard Lieber, of Indianapolis, showing that European cities reduce their fire losses through proper attention to construction.

The contrast between American and European methods and results is forcibly shown in a comparison of Berlin, Germany and Indianapolis. Berlin has a population of more than 2,000,000. Indianapolis has 250,000. Yet the fire loss in Indianapolis, according to Mr. Lieber's statement, is almost twice that of Berlin. His remarks along these lines are:—

Cities Are Poorly Built.

"Our cities are so poorly built that a fire may spread throughout the building in which it started and from it to other property. A special Consular report of 1905 shows that in such foreign cities as Havre, Rouen, Milan, Rome, Brussels, Antwerp, Leeds, Sheffield and Bristol, every fire in 1890 was confined to the building in which it originated, while in Dresden, Florence and Vienna and other cities, every fire was confined to the floor on which it originated.

"In Vienna there is no case known where the fire has extended beyond the building in which it originated. This is prevented by the solidity of the buildings, by strict fire regulations, and by a well-trained fire department, the latter consisting of five steam engines, but seldom called into action, and a large and sufficient number of hand engines.

Is a Partner in Crime.

"The average loss of Boston is $2,000,000. The loss is the average city of equal population in Europe is $150,000. Indianapolis, which, by the way, was lowest in the list of cities of over 200,000 inhabitants, has almost twice as much annual fire loss as Berlin. Other cities are, of course, far worse, but all of them have this in common, that their general run of buildings is of insecure or even hazardous construction.

"As long as the cities prefer the rights of the individual to the rights of the community we shall have this criminal participation in the fire loss. If it is right and fair to require a certain improved building construction for new buildings, these same laws should be rigidly enforced in the remodeling of outstanding risks. A city that fails in this is a partner in crime."—*Monetary Times.*

THE CANADIAN ANNUAL REVIEW.

The Canadian Annual Review for 1912 has just been published by the Annual Review Publishing Company. This valuable work, compiled by Mr. J. Castell Hopkins, represents an immense amount of labor, and contains an able summary of the prominent occurrences of 1912. It is written in scholarly style which should appeal to the class of readers who peruse it with interest and benefit each year.

The St. John Board of Trade has sent its Industrial Commissioner this week to New York to attend a convention of furniture manufacturers. He will endeavor to interest some of them in St. John as a site for a large factory, as the Province is rich in woods suitable for the business, and other woods can easily and cheaply be brought by water carriage.

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of September, 1913.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. "CL. stands for carload lots; L.C.L., less than carload lots.)

Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 24 E 2141	Sup. 24 E 1737	Various dates	Reshipping, stop-off and special arrangements. Reissue. Reduction.
E 2623	E 2236	Sept. 15-13	Class rates C. P. stations to points on the Erie R.R. New rates.
Sup. 17 E 2144	Sup. 17 E 2538	Sept. 8-13	Switching and interswitching at C. P. stations. Reissue. Reduction.
Sup. 1 E 2326	Sup. 1 E 1926	Sept. 17-13	Classes, C. P. stations to points on N.Y.C. & H.R. R.R. Addition.
Sup. 47 E 2492	Sup. 47 E 2092	Aug. 19-13	Commodities between C. P. stations. Reissue. Reduction.
Sup. 25 E 2141	Sup. 25 E 1737	Aug. 23-13	Reshipping, stop-off and special arangements. Reissue. Reduction.
Sup. 43 E 2492	Sup. 43 E 2092	Aug. 23-13	Commodities between C. P. stations.
Sup. 49 E 2492	Sup. 49 E 2092	Sept. 1-13	Commodities between C.P.R. stations. Reissue. Reduction.
Sup. 26 E 2141	Sup. 26 E 1737	Sept. 6-13	Reshipping, stop-off and special arrangements. Reissue. Reduction.
E 2629	E 2243	Sept. 8-13 (R) Oct. 6-13 (A)	Plastic lumber, c.l., Ottawa to C. P. stations and connecting lines. Reduction. Advance.
Sup. 27 E 1575	Sup. 27 E 1161	Sept. 8-13 (R) Oct. 8-13 (A)	Arbitraries of connecting lines south and east of Montreal. Reissue. Advance. Reduction.
Sup. 12 E 2529	Sup. 12 E 2133	Oct. 6-13	Commodities C. P. R. stations to points in the U. S. Reduction.
Sup. 51 E 2492	Sup. 51 E 2092	Various dates	Commodities between C. P. stations and to and from connecting lines. Reissue. Advance. Reduction.
Sup. 52 E 2492	Sup. 52 E 2092	Oct. 11-13	Commodities between C. P. stations and to and from connecting lines. Advance. Reduction.
Sup. 6 E 2570	Sup. 6 E 2178	Oct. 15-13	Commodities C. P. stations to points in the U. S. Reissue. Advance. Reduction.

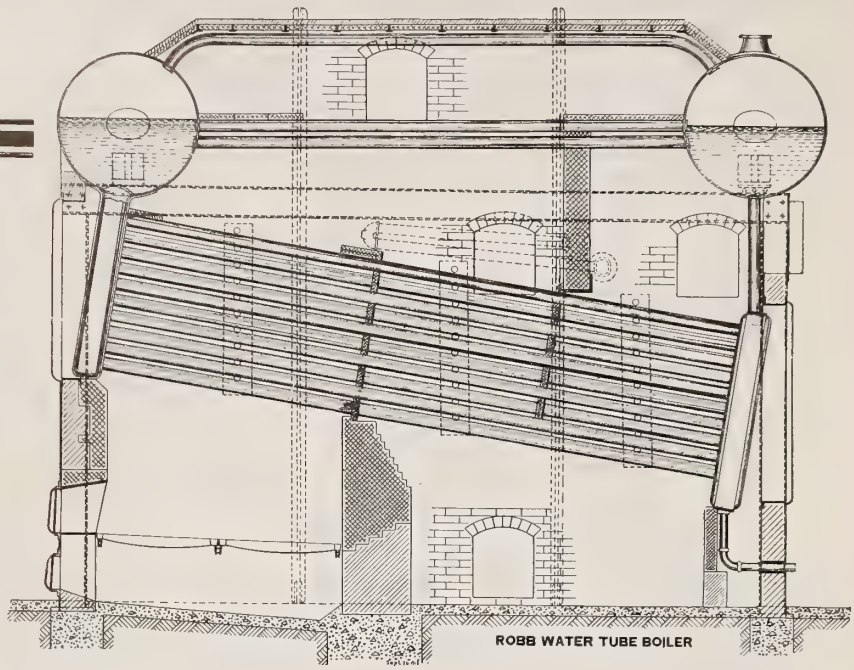
Grand Trunk Railway.

Sup. 13 E 2677	Sup. 13 S 88	Aug. 15-13	Local switching charges. Reduction.
Sup. 7 E 2684	Sup. 7 C.U. 72	Oct. 3-13	Commodities between G. T. stations and to connecting lines. Reissue. Reduction.
E 2770	C.U. 77	Sept. 16-13	Pig iron, c.l., Black Rock to Copper Cliff and Sudbury, Ont. Reduction.

Here's the Full Development of the Most Vital Feature in WATER-TUBE BOILER DESIGN---
UNIMPEDED CIRCULATION

But it is possible only with cross drums, and few boilers have them.

The unrestricted passage from front header to steam drum is what gives perfect circulation in the



ROBB WATER TUBE BOILER

ROBB
Water-Tube Boiler

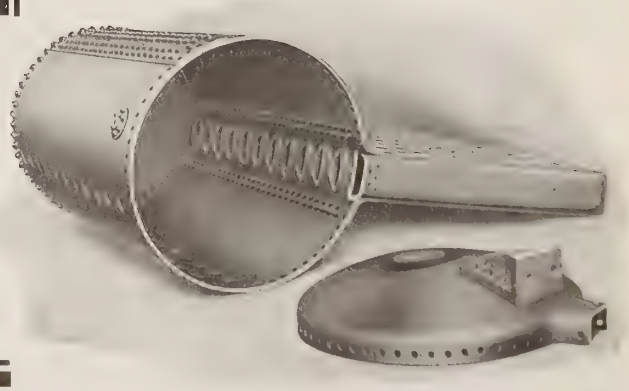
In this type, the areas of passages at EVERY POINT are ample for the volume of water or water and steam which must pass that point.

Some boiler makers claim good circulation, but they evidently overlook the fact that a mixture of water and steam requires a larger passage than water alone. And how can a volume from nine to eighteen tubes pass through a single tube of the same size without seriously retarded velocity?

You know what good circulation does—increases the amount of steam, for water flows faster—sweeps the tubes free from sediment and scale—makes for rapid evaporation.

OTHER FEATURES EXPLAINED
IN BULLETIN No. 6.

Fix
Your Attention
on the
Full Width Header



International Engineering Works
Limited

AMHERST, N.S., CANADA
SO. FRAMINGHAM -:- MASS.

DISTRICT OFFICES

Transportation Building, Montreal, Que.	R. W. Robb, Manager
Traders Bank Building, Toronto	E. F. Bradley, Manager
641 York Street, Edmonton, Alberta	W. F. Porter, Manager
609 Grain Exchange Building, Calgary, Alta.	J. F. Porter, Manager

39-53

Get Brighter Light

Without Increased Cost

USE

Northern Light

MAZDA LAMPS



BUY THEM BY THE BOX

Northern Light Mazda Lamps give three times the light of the old-fashioned carbon lamps and consume no more current

Use them in your factory. Brighten up the dark places
Increase efficiency without adding to expenses

For your own convenience buy Northern Lights by the box

THE Northern Electric AND MANUFACTURING CO. LIMITED

Manufacturer of Telephone and Fire Alarm Apparatus and Distributor of Electrical Supplies for Every Possible Need

MONTREAL HALIFAX TORONTO WINNIPEG
REGINA CALGARY EDMONTON VANCOUVER

Grand Trunk Railway.

Sup. 69 E 2644	Sup. 69 C.Y. 27	Aug. 19-13	Wrought iron pipe, c.l., Welland to Onondaga, Ont. Reduction.
Sup. 9 E 2472	Sup. 9 C.Y. 22	Aug. 20-13	Bridge and structural iron and steel, c.l., Dominion, Que., to Levis and St. Hyacinthe. New rate.
Sup. 45 E 150	Sup. 45 G.B.Y. 5	Aug. 23-13	Wire rods, c.l., from Hamilton to Brantford, Collingwood and Toronto. Reduction.
Sup. 16 E 2374	Sup. 16 C.R. 111	Aug. 23-13	Reshipping, stop-off and special arrangements. Reduction.
Sup. 10 E 2457	Sup. 10 S 86	Sept. 22-13.	Interswitching. Advance. Reduction.
Sup. 72 E 2644	Sup. 72 E. Y. 27	Sept. 2-13	Steel bars, c.l., Welland to Grand Mere, P.Q. Reduction.
E 2777	C. F. 253	Oct. 6-13 (A) Sept. 8-13 (R)	Plastic lumber, c.l., Ottawa to G. T. stations and points on connecting lines. Advance. Reduction.
Sup. 17 E 2374	Sup. 17 C.R. 111	Sept. 8-13	Reshipping, stop-off and special arrangements. Reduction.

Boston & Maine Railroad.

1437 Cancels 9 tariffs	———	Sept. 15-13	Commodities B. & M. stations to points on C.P.R.
1438 Cancels 10 tariffs	———	Sept. 15-13	Commodities B. & M. stations to points on G.T.R.

Michigan Central Railroad.

Sup. 23 1751	Sup. 23 8764	Sept. 15-13	Commodities Buffalo, Black Rock and Suspension Bridge, N.Y., to points in Canada.

Baltimore & Ohio Railroad.

1115 Cancels 949	———	Sept. 22-13	Classes B. & O. stations to points on Pere Marquette R.R. in Ontario.
1113 Cancels 948	———	Sept. 13-13	Classes B. & O. stations to points on Michigan Central, N. St. C. & T. and T. H. & B. Railways in Canada.
1112 Cancels 951	———	Sept. 20-13	Classes B. & O. stations to points on G. T. Ry. in Canada.
1120 Cancels 664		Oct. 1-13	Class rates, B. & O. stations to points on G. T. Ry.
1122 Cancels 945		Oct. 4-13	Class rates, B. & O. stations to points on P. M. R.R.
1127 Cancels 1072		Oct. 10-13	Class rates, B. & O. stations to points on G. T. Ry. and connections.
1128 Cancels 767		Oct. 10-13	Class rates, B. & O. stations to points on C. P. Ry.

Minneapolis, St. Paul and Sault Ste. Marie Ry.

508 Cancels 324 399	16871 8815 11794	Aug. 29-13	Pig iron, c.l., points in Michigan to stations in Canada.

Lake Shore & Michigan Southern Railway.

Sup. 5 251		Oct. 1-13	Class and commodity rates, L.S. & M.S. stations to points in Canada.

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

795. **Wrapping Paper.**—A Cape Town firm, printers, stationers and paper bag manufacturers, requests correspondence and samples of wrapping paper.

796. **Paper Bags.**—A South African firm of paper bag manufacturers and buyers of same requests samples.

797. **Twine.**—A Cape Province firm with travellers covering the stationery trade of South Africa would be pleased to hear from Canadian twine manufacturers.

798. **Hardware.**—Canadian manufacturers of hardware are requested to communicate with Havana broker.

799. **Furniture.**—A Havana broker would like to hear from Canadian exporters of furniture.

800. **Clothes Pins and Washboards.**—A buyer in Holland wants large quantities of 4-inch, 4½-inch, first quality wooden clothes pins; also spring clothes pins and 17-inch non-splintering wooden washboards, dovetailed, without zinc. Samples wanted; also price c.i.f. Amsterdam.

801. **Mill Offal and Feedstuffs.**—A Bremen importer of feedstuffs desires to form business connections with Canadian mills able to make regular shipments of feedstuffs.

802. **Fencing Material.**—All kinds of fencing material if right will be purchased direct. Communications requested by Durban firm.

803. **Asbestos.**—A Durban firm is prepared to make purchase in asbestos.

804. **Handles.**—Quotations, descriptions and samples if possible are requested re wooden handles, shovel, pick, axe and tool.

805. **Steel Shovels.**—A firm in South Africa, now handling many shovels, is prepared to purchase direct. Quotations and catalogues requested.

806. **Machinery, Laundry.**—A Durban firm of engineers and suppliers to same will purchase steam laundry machinery. Do not want agency. Request lowest quotations c.i.f. Durban, and catalogues.

807. **Binder Twine.**—A Durban firm requests samples and quotations at once on Canadian made binder twine.

808. **Brushware.**—A South African firm requests correspondence, quotations and catalogues of brushware.

Brass and Copper
TUBING

Including
Iron Pipe
Sizes

We can make immediate shipment from stock

ASK FOR CATALOGUE

Tallman Brass & Metal Co.
HAMILTON, ONT.



WANTS MANUFACTURES

THE remarkable growth of the cities, towns and agricultural districts in Western Canada has created an UNPRECEDENTED DEMAND for Industries of ALL KINDS. Winnipeg wants Additional Factories, and offers the best labor market in Canada. Electric Power and Light from 60,000 municipal plant at cost, cheap sites, low taxation and best distributing facilities in all Canada.

THIS IS YOUR OPPORTUNITY
RIGHT NOW IS THE TIME
WINNIPEG IS THE PLACE

Reports furnished free on the manufacturing possibilities of any line of industry.

Write CHAS. F. ROWLAND,
Commissioner, Winnipeg, Canada

ARE YOUR STEAM PIPES INSULATED?
IF NOT YOU ARE BURNING MONEY

A **GOOD** Covering pays for itself in one Season, and is a revenue producer indefinitely.
The Best is the Cheapest. ☞**WE HAVE IT.**

EUREKA MINERAL WOOL & ASBESTOS COMPANY
118 ADELAIDE STREET WEST, TORONTO, ONTARIO

If It Pays Others, It Should Pay You To Use Our Oxy-Acetylene Plants

See if you cannot improve your process of manufacturing and decrease your maintenance cost by using

OXY-ACETYLENE WELDING

of metals and cutting of iron and steel in any form or shape.

L'AIR LIQUIDE SOCIETY

Oxygen Manufacturers Welding & Cutting

MONTREAL - - TORONTO

The Montreal Lithographing Company, Limited

High Class Lithographers and Designers of

CALENDARS SHOW CARDS

LABELS OFFICE STATIONERY

ADVERTISING PLAYING CARDS

Office and Works

ONTARIO STREET & PAPINEAU AVENUE

MONTREAL, CANADA

809. **Chairs, Folding.**—A Durban firm requests catalogues and quotations on folding chairs made from cheaper wood than maple.

810. **Organs.**—A South African firm will purchase direct a Canadian made organ costing f.o.b. Montreal from $30 to $52. Must be showy and as many stops as possible for the price. Catalogues are requested.

811. **Furniture.**—A Durban firm requests catalogues and quotations on cheap grade furniture.

812. **Chairs.**—A Durban firm requests catalogues and quotations on cheap grade chairs.

813.—**Fencing Material.**—A South African firm requests catalogues and quotations on fencing material of all kinds.

814. **Furniture.**—A Durban firm with many travellers and branch warehouses requests correspondence from Canadian furniture exporters. Send catalogues and f.o.b. prices.

815. **Agricultural Implements.**—A South African firm with connections in every state of the Union is prepared to represent or purchase agricultural implements. Requests correspondence, catalogues and quotations immediately.

816. **Dairy Machinery.**—A Durban firm with connections in the principal towns in South Africa is prepared to receive correspondence, quotations and catalogues on dairy machinery.

817. **Box Shooks.**—A Durban firm requests correspondence re all kinds of box shooks.

818. **Biscuits.**—A Cape Town provision jobber calling on all wholesale trade in South Africa is prepared to take up agency for line of Canadian made biscuits.

819. **Boots and Shoes.**—A Newfoundland firm asks for names of Canadian manufacturers.

820. **Iron Bedsteads and Mattresses.**—Canadian manufacturers are asked to correspond with a Newfoundland importing firm.

821. **Tinplate Scrap.**—A Birmingham firm is open to purchase large quantities of tinplate scrap.

822. **Washing Machines.**—A Durban firm with branches throughout South Africa requests quotations from manufacturers of washing machines. Machine to compete with is American made—Doty, family and hotel size.

823. **Dairy Utensils.**—Catalogues, quotations and correspondence is requested by a South African firm re all kinds of dairy utensils.

824. **Cream Separators.**—A Durban firm, large dealers, are prepared to represent or purchase direct cream separators if suitable to South African market.

825. **Chairs, Bentwood**—A Durban firm requests catalogues and prices on bentwood chairs.

826. **Tables.**—A Durban firm will purchase big quantity annually of tables. This is a cheap painted table, sizes of largest sellers 4 feet 2-6, 5 feet 3, packed in half dozen in knocked down state.

827. **Agent.**—A Sydney (Australia) agent desires to be placed in touch with Canadian manufacturers of kraft brown paper, sulphite paper, newspaper, paper boards and all kinds of wrapping and printing papers. Bank references are given.

ALWAYS USE

Hammer Brand Plaster of Paris

Manufactured for Half a Century—the Standard of Excellence



Try it and Compare
Its Surface Covering Capacity
With Other Brands

MANUFACTURED SOLELY BY

ALBERT MANUFACTURING CO.

Hillsborough, New Brunswick, Canada

EXPORT AGENTS: THE IMPERIAL EXPORT CO., LIMITED

MELBOURNE	SYDNEY	AUCKLAND	CHRISTCHURCH
17 Queen St.	Martin's Chambers, Moore St.	34 Fort Street	———St.

Nova Scotia Steel & Coal Co.

LIMITED

Head Office: New Glasgow, Nova Scotia

Steel Works - - - - TRENTON, N.S.

Iron Mines - - - - WABANA, NFLD.

Collieries and Blast Furnaces, SYDNEY MINES, N.S.

"OLD SYDNEY COAL"

Shipping Port, North Sydney

ADDRESS ALL CORRESPONDENCE TO HEAD OFFICE

THE CANADIAN BANK OF COMMERCE

SIR EDMUND WALKER, C.V.O., LL.D., D.C.L., President

ALEXANDER LAIRD, General Manager

JOHN AIRD, Assistant General Manager

Capital	-	-	$15,000,000
Rest	-	-	$12,500,000

TRAVELLERS' CHEQUES

The Travellers' Cheques issued by this Bank are a most convenient form in which to carry money when travelling. They are issued in denominations of

$10, $20, $50, $100 and $200

and the exact amount payable in **Austria, Belgium, Denmark, France, Germany, Great Britain, Holland, Italy Norway, Russia, Sweden** and **Switzerland** is stated on the face of each cheque, while in other countries they are payable at current rates.

The cheques and all information regarding them may be obtained at every office of the bank.

THE ROYAL BANK OF CANADA

Incorporated 1869

Capital Authorized . . .	$25,000,000
Capital Paid up	$11,560,000
Reserve & Undivided Profits	$13,000,000
Total Assets	$180,000,000

HEAD OFFICE, MONTREAL

BOARD OF DIRECTORS

H. S. Holt, President — E. L. Pease, Vice-President
E. F. B. Johnston, K.C., 2nd Vice-President

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Hon. D. MacKeen	W. H. Thorne	A. J. Brown, K.C.
Jas. Redmond	Hugh Paton	W. J. Sheppard
G. R. Crowe	T. J. Drummond	C. S. Wilcox
	A. E. Dyment	

OFFICERS

E. L. Pease, General Manager
C. E. Neill and F. J. Sherman, Asst. Gen.-Managers
W. B. Torrance, Supt. of Branches

Branches in every Province of the DOMINION OF CANADA and in NEWFOUNDLAND; in HAVANA and throughout CUBA, Porto Rico and Dominican Republic; BAHAMAS, Nassau; BARBADOS, Bridgetown; JAMAICA, Kingston; TRINIDAD, Port of Spain and San Fernando; BRITISH HONDURAS, Belize.

LONDON, ENG., OFFICE—Princes St., E.C.

NEW YORK AGENCY — Corner William and Cedar Sts

Savings Department at All Branches

AMONG THE INDUSTRIES

W. & J. G. Greey, Toronto, will build an addition to their foundry.

Plans are being drawn by F. Galibert, Montreal, for a new glove factory.

The United Fruit Co., Berwick, N.S., are erecting a $5,000 office building.

A $20,000 plant is contemplated by the Canadian Auto Top Co. at Tilbury, Ont.

The American Can Co. are erecting a manufacturing building in Maisonneuve.

An addition will be built to the Sarnia Jam Factory Company's plant at Sarnia.

A boot and shoe factory, costing $55,000, is planned by the W. G. Downing Co., Regina.

The Western Canada Threshing Machine Co. plan to build a factory in Medicine Hat.

Smith & Whitney will make application to change its name to Whitney & Company, Limited.

The Argus Fire Alarm Co., Montreal, are building a new factory which will cost $100,000.

An addition will be made to the factory of the Canadian Engines, Limited, Dunnville, Ont.

The McLaren Cheese Co., Toronto, contemplate erecting ten milk factories in British Columbia.

A confectionery factory is contemplated for the Taber Candy Co., Limited, at Medicine Hat.

The William Sugarman Company, Limited, will change its name to B. Lauer & Company, Limited.

The Cement Products Company, Limited, will make application to change its name to Whites, Limited.

The Brockville Lumber Company, Limited, recently increased their capital from $75,000 to $200,000.

The name of the Walker-Knisely-Woods Company, Limited, has been changed to Woods-Walker Company, Limited.

The Tonkin-du-Pont Graphite Co. has been incorporated to build and operate mills for refining graphite at Wilberforce, Ont.

M. J. O'Brien, of Renfrew, is contemplating building a factory for the manufacture of mining tools and equipment in Ottawa.

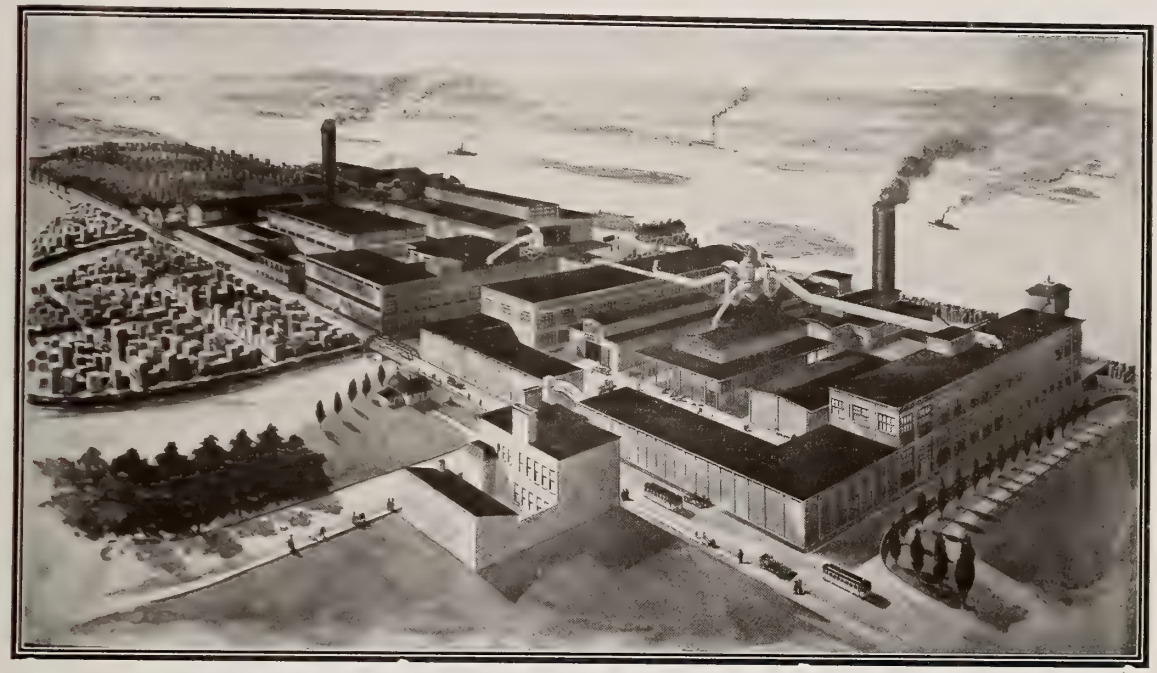
Scierie Mont Laurier, Limited, have been incorporated with capital stock of $49,000. W. Lalonde, Montreal, P.Q., is advocate for the company.

The Seaman Kent Company, 970 Durocher St., Montreal, P.Q., have had plans prepared for the erection of a lumber warehouse to cost $25,000.

The taxpayers of Hawkesbury, Ont., have passed a by-law agreeing to give concessions to a proposed company which will erect a paper and board mill.

R. H. Campbell, Chief Forester of the Forestry Branch of the Department of the Interior, is making a tour of the West in the interests of his department.

Plant of W. C. Edwards & Co., Ltd., Ottawa



The most modern woodworking plant on this continent. Built entirely according to

KAHN SYSTEM
REINFORCED CONCRETE

This system is especially well adapted to FACTORY CONSTRUCTION. Full information gladly furnished gratis on request.

Trussed Concrete Steel Co. of Canada, Ltd.

Head Offices and Works: Walkerville, Ont.

BRANCHES: TORONTO MONTREAL HALIFAX WINNIPEG VANCOUVER

HOW DO YOU CARRY YOUR FUNDS WHEN TRAVELLING?
Surely not in Cash!

THE SAFEST AND MOST CONVENIENT WAY TO CARRY YOUR MONEY IS IN THE

TRAVELLERS' CHEQUES
OF THE
DOMINION EXPRESS COMPANY

These Cheques show on the face thereof the exact amount you will receive in the various countries throughout the world, and as they are accepted by first-class Stores, Hotels, Tourists Agencies, Express, Railway and Steamship Agencies, Banks and Bankers, in addition to our regular correspondents, no difficulty is experienced in getting them cashed at any hour of the day They are issued in denominations of $10, $20, $50, $100 and $200, are self-identifying, and protect you in the event of the loss of the cheques.

OVER FIFTEEN THOUSAND REGULAR CORRESPONDENTS THROUGHOUT THE WORLD

For Further Particulars Apply to our Local Agent

Toronto City Offices:
48 YONGE ST. and 1330 QUEEN ST. W.

Agencies in all C.P.R. Stations and Branch Agencies in Drug Stores, etc.

Conveniently Located in Residential Districts.



MADE IN CANADA

Canadian Hart Wheels

CUT FASTER LAST LONGER
Than any other wheels on the market

Tell us the service you want performed and we will supply you with an abraser that will save you time, money and worry.

Send for one of our catalogues and tell us your troubles. We do the rest. :: :: :: ::

CANADIAN HART WHEELS LIMITED
450 BARTON ST. EAST
Hamilton :: :: :: Ontario

A new company is being formed to erect a paper and board mill at Hawkesbury, Ont. Mr. Frank Helmick, of Montreal, is one of the gentlemen interested in this company, and it is understood that a prospectus will be issued shortly.

Mr. William Price, of Quebec, has been appointed Hon. President of Union Bank of Canada, in succession to the Hon. John Sharples. The Vice-Presidency vacated by Mr. Price has been filled by the appointment of Mr. George H. Thompson, Quebec.

Messrs. Clark & Lyford, Limited, were recently incorporated at Vancouver with a capital of $20,000 to carry on the business of forest engineers and timber cruisers and valuators. This business had previously been carried on for a considerable time under the style of Clark & Lyford.

Mr. George Cushing, of the firm of Cushing Brothers, Limited, one of whose planing mills is located at Saskatoon, has sold out his interests in the big concern at an ample figure not yet made public. It is understood that Mr. Cushing intends to enter upon some other line of business.

The plant of the Pacific Woods Company on Burrard Inlet has been bought by the Howe Sound Mill & Logging Company, representing Messrs. Newberry, Roray and Lewis, of the State of Washington. Mr. Roray will have charge of the manufacturing end, while Mr. Newberry will superintend the firm's logging operations on Howe Sound.

A large number of citizens of the Eastern Townships of the Province of Quebec have petitioned the Hon. Jules Allard, Minister of Crown Lands, asking that the Government build storage reservoirs to hold the waters of the St. Francis River in order to regulate the flow. They also ask that the Commission on Running Waters study the problem.

By the end of the month the E. B. Eddy Company, of Hull, will have its new pulp mill in operation as well as its new power house completed. This mill, which is said to be one of the largest and most up-to-date in the world, will mean a considerable increase in the output of pulp. The opening of the new power house will enable every other branch of the plant to handle and manufacture material much more expeditiously than is the case at present.

J. R. Booth, of Ottawa, intends cutting thousands more logs in the woods next winter than he did last. He will shortly have 20 camps operating in which will be 2,500 men, 1,000 more than last season. The camps will be located along the Black, Coulogne and Montreal Rivers. Shepard & Morse and several other local firms also are going to make a bigger cut this year than they have for some time. There is no dearth of men offering themselves for work; in fact, men have not been so plentiful for a long time.

The Western Canada Paper Company, which has a daily output of twenty tons of building paper and fifteen tons of wrapping, at Sapperton, on the Fraser River, has for its officers this year: President, Barclay Bonthorne, Vancouver; Vice-President, A. E. White, Vancouver; Directors, E. F. Allen, Joseph Caldwell and A. S. Brake, Vancouver. C. J. Bastedo, who was formerly with the Canada Paper Company, of Windsor Mills, Que., and the J. R. Booth Company, Ottawa, is General Manager, the Superintendent being C. S. Shandley, who for ten years previous to coming to the Coast was with the E. B. Eddy Company, of Hull, Que.

INDUSTRIAL CANADA

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Litigation and Compensation.

THE absence of litigation from the proposed Ontario Act was appreciated by the manufacturers who heard the report of the Workmen's Compensation Committee at the Halifax convention. On this point Mr. John Firstbrook, of Toronto said:

"One of the strong features of the proposed legislation is the entire elimination of litigation. The intention is that, in case of accident, the whole of the compensation should go to the person injured and not the greater part of it to the members of the legal fraternity as it does now. The initial cost may be greater, but the corresponding advantage will be greater both to employer and to employed."

Proposed Advance in Freight Rates.

THE Canadian Northern (lines east of Port Arthur), Canadian Pacific (eastern lines) and Grand Trunk Railways have filed with the Board of Railway Commissioners for Canada, Ottawa, and the Interstate Commerce Commission, Washington, tariffs effective November 15th, advancing all rates approximately 5 per cent., class and commodity, on traffic moving between points in Canada east of Port Arthur, and points in the United States east of Chicago and north of the Ohio River. The same advances are proposed on import and export traffic to and from all Eastern Atlantic ports (Canadian and United States).

These advances are made in sympathy with similar advances effective the same date in the Eastern United States. They apply on all raw material such as coal, iron, lumber, etc., brought into Canada by the manufacturers, also on paper, wood-pulp and such commodities as are exported to the United States and move under commodity tariffs. The advance on bituminous coal from the Niagara frontier averages from 5 to 15 cents per ton.

The United States railways have been agitating in this direction ever since the advances proposed in 1910 were disallowed by the Interstate Commerce Commission, and, with that in view, filed a petition with the Interstate Commerce Commission for a rehearing, which was denied in June last. Subsequently they decided to publish and file tariffs on the basis of 5 per cent. advance, effective on the date mentioned, with the expectation that the Interstate Commerce Commission would suspend them of their own motion and institute an immediate inquiry for the purpose of determining their reasonableness.

No similar application of which the public is aware has been made by the Canadian railways to our Board of Railway Commissioners, neither has it been intimated that they wanted to make a horizontal advance of this kind. There is an impression that this action on the part of the Canadian roads was taken for the purpose of strengthening the hands of their United States connections before the Interstate Commerce Commission in addition to benefiting themselves in Canada.

While the advances are confined to international traffic moving east of Port Arthur and to import and export traffic within that territory, if they remain unquestioned by our Board of Railway Commissioners it will be difficult to estimate the effect on the domestic rates as well as on the general inquiry into freight rates west of Port Arthur, which is to be settled on November 24th.

It is expected that the Interstate Commerce Commission will suspend all of these tariffs pending an inquiry as to their reasonableness. If this is correct, the interests of Canadian shippers and receivers should not be left altogether with the Interstate Commerce Commission.

That body will undoubtedly deal with the matter as it appeals to it nationally. As the jurisdiction of the Canadian Railway Commission in respect to international rates is the same as that of the Interstate Commerce Commission, it is to be hoped that some action will be taken to require the Canadian railways to show why the proposed advances should or should not be allowed.

Tariff and Living.

THE cost of living is higher in Canada than in any other country, according to recent official figures. By many this is ascribed to our tariff. But, if their contention is correct, how is it that the cost of living in Canada, which is a low tariff country, is higher than in the United States or Germany, which are high tariff countries?

It is difficult to determine what part a tariff plays in the cost of living. In a discussion on this question, the following recently appeared in the *New York Journal of Commerce*:

"We presume, of course, that to some extent the tariff may be said to be responsible for the high cost of living, but we consider that the extent to which the tariff is so responsible is very small in comparison with other causes.

"More than 50 per cent. of the cost of all production, be it agricultural or industrial, is the wages paid to labor. We all know that for several years past the price of labor has steadily and persistently increased. Not only so, but we also know that the hours of labor have steadily and persistently decreased. Putting these two causes together, is there any reasoning man who can deny that the high cost of living is due very many more times to the high cost of labor and the reduction in working hours than to the tariff system."

Those who claim that the tariff is entirely responsible for the high cost of living in the United States must explain away our higher cost. When the United States tariff comes down to the level of ours, will the cost of living in that country go up to ours?



WOODROW'S BARGAIN DAY

Uncle Sam:—"That Canady feller's not advertising any special reduction, but he's lower'n you, just the same, Woodrow."

Sir Wilfrid Laurier and the Tariff.

SIR Wilfrid Laurier, speaking at Joliette, Quebec, is reported by the *Toronto Globe* to have expressed the following views on the tariff:

"Our adversaries will say that if you touch the tariff manufacturers will be injured. But I say that you can revise the tariff without injuring manufacturers. We did it in 1897, and what we did then we can do again. If the Government are unable to do it let them make way for someone else. You may ask us what should we do if we were in power. We should do as we did in 1896—we should appoint a Commission."

Manufacturers will at once ask whether the speaker is in favor of a general downward revision or of a readjustment which will leave the tariff at the average level where it now stands.

Speaking to the manufacturers at the Halifax convention, Mr. R. S. Gourlay, retiring President, said:

"If it will serve any useful purpose let me here and now place our Association on record once more as being satisfied with the present general level of our tariff, subject to the adjustment of certain defects such as those I have mentioned. But it should also be made clear and emphatic that we are unalterably opposed to any general lowering of the tariff on goods of a class or kind made or produced in Canada. We still stand firmly by the principle we enunciated in this city eleven years ago, namely, that our tariff should be so framed and consistently maintained as to transfer to the workshops of our Dominion the manufacture of many of the goods we now import from other countries."

The clearly expressed opinion of the convention was that any revision of the tariff should be limited to adjustments aiming at the removal of certain apparent inconsistencies which have crept in with the great industrial growth of the country. The tariff which has helped to place Canada among the commercial nations needs no radical change.

Uncle Sam's Gift Horses.

IT may be bad manners, but we should always look Uncle Sam's gift horses in the mouth. During the last few years he has trotted out for our approval several suspicious steeds which rival in unworthiness the notorious wooden horse of ancient Troy. The Reciprocity gift horse was a pretty animal when we saw him cantering gaily towards us, but he was a sorry sight when we put him through his paces and revealed his toothlessness, his spavins and his general debility.

Now Uncle Sam is urging his tariff reduction horse into our wheat fields.

Under our low tariff, United States business men last year sold us goods to the value of $141,155,855, but by their exclusive tariff wall they only allowed our business men to sell them goods to the value of $167,110,382.

When the United States lowers its duties so as to allow trade between that country and Canada to balance, it will only return us the business treatment which we have given it since Confederation. In the past, the occasional geniality of Uncle Sam has resembled too greatly the terrific friendliness of the wolf to Red Riding Hood.



JUST HIGH ENOUGH TO BLOCK HIM

Uncle Sam:—"T'aint a high wall, but its high enough to stop me puttin rollers under them buildin's and movin' 'em over here again."

Discriminating Duties in U.S. Tariff.

THE Underwood Tariff imposes a 5 per cent. discriminating duty in favor of imports carried in vessels of United States registry, providing this does not conflict with any treaty.

When the bill was first introduced it provided for a discount of 5 per cent. of duties on goods "imported in vessels built in the United States and which shall be wholly the property of a citizen or citizens thereof." Prompt protest was naturally lodged against this section by several other governments, alleging that it would violate existing treaties, and in due course the section referred to was dropped. The new tariff law provides that goods imported into the United States in American vessels shall pay 5 per cent. less than the tariff schedules call for. It is further provided, however, that the vessels of any nation having by treaty a guarantee of equal treatment with vessels of the United States with regard to import duties shall enjoy the same reduction of 5 per cent. The manner in which Canada is affected is explained as follows by the *American Exporter:*

"It is said that seventeen foreign governments have such treaties with the United States, and officials of the Treasury Department charged with the collection of duties are reported to declare that the clause in question will involve a horizontal reduction of 5 per cent. in duties on importations from most of the great countries of the world. However, a peculiar situation has been discovered by the solicitor of the State Department. In an examination of the treaties with Great Britain and Germany it was found that the reciprocal treatment in the case of the British treaty applies only to vessels bringing in goods which are the 'growth, product or manufacture of his Britannic Majesty's territories in Europe.' This provision, therefore, does not extend to such British domains as Canada, Australia, New Zealand, Jamaica, South Africa, India, etc. Consequently imports from these possessions of Great Britain will have to pay the full rate of the new tariff schedules and in effect will be taxed an additional 5 per cent. over goods from other countries."

Dominion Conditional Sales Act.

AFTER the Parliamentary Committee's Report was read at the Halifax Convention, Mr. Wegenast, Legal Secretary of the Association, said:

"The Ontario Government, or some members of it, are considering the advisability of having a uniform conditional sales act for the Dominion. The whole matter may be adjusted in connection with a proposition of that kind."

The trend of public opinion is in favor of Federal rather than Provincial control of matters which concern citizens in all or the majority of the provinces. Dominion incorporation of companies must, in time, supersede the complicated method of provincial incorporation. This tendency is also illustrated in educational matters. Doctors, lawyers, teachers and other professional men are uniting to secure admission to all the provinces by the possession of authority from federal statutes.

The Growth of Canadian Railways.

CANADA has more miles of railway per capita than any other country. We have 30,088 miles in operation; 8,826 miles under construction; and several thousand more miles in the brains of promoters. This is a magnificent achievement for the railway builders of this country. But the people of the country have also done their share in completing these huge enterprises. In cash subsidies, the Dominion Government, Provincial Government, and municipalities have given in cash up to date the immense sum of $208,072,-074; 56,052,055 acres of land, and guarantees aggregating $245,070,-045.

For 1912 the increase in cash subsidies over 1911 amounted to $5, 892,818; in land, 6,000,-000 acres, and in guarantees, $96,733,688. In addition to this, the Government is constructing the eastern division of the Grand Trunk Pacific at a cost which the Minister of Finance announced in Parliament would probably reach $243,000,-000, of which the expenditure of $117,000,000 has already taken place.

These items added together make $696,142,-119 without placing any money value on the land grants. It is impossible to say what the latter are worth, but the holdings of the Canadian Pacific and Canadian Northern Railways in the West would realize not less than $150,000,000 at prevailing prices.



A Long Time Hatching.

Yet the transportation problem remains the greatest national problem of Canada. High transportation charges are one of the chief causes of our high cost of living. We have given generously to our railways. They have been allowed to fix their rates. They are prosperous enterprises. We want service. We have paid for it and will continue to pay for it, but we must have it.

There will soon be three great transcontinental railways completed from ocean to ocean. We want no more for the present. The time has come when the railways should stop building main lines and devote their attention first to covering the country with a net-work of branch lines, which will serve the vast areas waiting for settlement; and second, to the improvement of their service. By ceasing the construction of main lines for the present, the companies will save money to buy engines and cars, to build terminals and sidings, and to make other improvements in their service, which are the crying needs of this country.

Shifting the Burden.

BEFORE the citizens of the United States cast their hats too high in celebrating the passage of the Underwood Tariff Bill they should await the result of the imposition of the income tax, which is designed to produce the revenue cut off by tariff reduction.

The old tariff produced a revenue of $305,000,-000; the new revenue is estimated at $249,000,-000. On the other hand, the estimated revenue from corporation and income taxes under the old law was $37,000,000; under the new it is placed at $122,000,000.

The old United States tariff levied high duties on luxuries and comforts. By taxing these, the revenues of the country were increased without exacting contributions from those of limited means. The income tax, while it bears most heavily on the wealthy, will also collect a portion of moderate salaries and incomes. The cost of running a country must be paid for either with money raised indirectly through the customs or by direct taxation.

Revision of By-Laws.

CONSIDERING the extensive changes made in the by-laws of the Association at the Halifax Convention, it was gratifying that they were passed practically without friction, although there was some necessary discussion. The new by-laws, adapted to the increased needs of the Association as a result of its growth, will permit business to be transacted with greater despatch and efficiency.

U.S. Average Duty on Imports.

THAT the average percentage of duty imposed by the Underwood Bill will be 27 per cent. of the value of all merchandise imported into the United States is an editorial statement which appeared during October in the *American Metal Market*. Last month, in making a com-

parison in these columns between the average percentage of duty imposed by the new United States tariff and that imposed by the Canadian tariff, we used the United States Finance Committee's estimate, which was 26 instead of 27 per cent. The slightly higher percentage reckoned by the *American Metal Market*, which is one of the most reliable journals published in the United States, only emphasizes the lower percentage levied in Canada.

For the year ending March 31st, 1913, the value of the merchandise imported free of duty was $228,482,181; of that on which duty was paid, $441,518,008. The total amount of duty collected was $115,039,156. Consequently, the duty collected was only about 17 per cent. of the value of all goods imported and only about 26 per cent. of the value of dutiable goods. That is, the average rate of duty charged by Canada on dutiable goods was only about one per cent. less than the average rate which the *American Metal Market* says will be charged on all goods imported into the United States. The same authority states that, under the old tariff law, the average rate of duty levied in the United States on all imports was 37 per cent., or more than double the average rate levied on all imports in Canada.



What Will He Do About It?

In view of the above figures, surely any demand for downward sympathetic revision of the Canadian tariff will be made only by Free Traders, who are opposed to any tariff, and who believe that the revenue now secured by the Canadian tariff should be raised by direct taxation on land and by the imposition of an income tax.

Improving Canadian Stock.

THE enterprise of Canadian farmers is well illustrated by the trade returns of free imports for the year ending March 31st, 1913, which show that thoroughbred animals, valued at $1,180,188, were imported into Canada during the year for the improvement of Canadian stock.

Canadian farmers, who have the best home market in the world, are acting wisely in determining to give that market the best which can be produced. The circle works thus. Good stock brings good prices to the farmer. With good prices the farmer can buy good things from the manufacturer, who with his employees will appreciate the good food and materials supplied by the farmer.

Industrial Canada Scholarships.

THE decision of the Halifax convention to increase the INDUSTRIAL CANADA Scholarships fund to $1,000 annually, shows that these scholarships are appreciated, not only by the students who receive them but also by the manufacturers who indirectly provide the funds. Last year scholarships were offered to competing students from Toronto, McGill, and Dalhousie Universities and the Manitoba Agricultural, Ontario Agricultural and Macdonald Colleges offered scholarships. The total amount awarded was $440. It was felt that technical colleges and industrial schools should be included in a larger appropriation, which would permit an increase of scholarships.

Maritime Newspapers and the Convention.

THE favorable tone of the editorials and the space given in the news columns of the Maritime Province newspapers formed one of the most pleasant features of the Association excursion to Halifax. The proceedings of the convention and the itinerary of the special train were reported fully, and the editorials, on the whole, supported those principles for which the manufacturers have constantly struggled. This friendly and encouraging attitude of the Maritime Province press was thoroughly appreciated by the manufacturers.

Scientific Management.

THE experience of manufacturers seems to be that scientific management decreases a staff while it increases its efficiency. In other words, equal or better results are produced easier and cheaper by a smaller staff. Reports from firms on this continent show that scientific management has become practical.

CONVENTION AND TECHNICAL EDUCATION

WHETHER it is the intention of the Federal Government to deal with technical education in the different Provinces directly or to give grants to the Provinces to be administered by the Provinces themselves, was a point raised by Mr. C. B. Gordon after the report of the Technical Education Committee had been read at the Convention.

Mr. G. M. Murray, General Secretary, gave the following explanation:

"The thought in the mind of the Commission was that this fund would be appropriated annually by Parliament and deposited to the credit of the Dominion Commission, by which Commission it would be deposited to the credit of the Provinces according to their population. Then cheques for the benefit of the different Provinces would be paid upon a certificate of the chief educational officer that work of a certain grade satisfactory to the Provincial Government had been performed."

Mr. Gordon: "At the present time the Provinces are administering to a certain extent their technical education. There seems to be an overlapping of authority."

Mr. Murray: "There will be no overlapping, because this grant is simply to encourage and supplement what the Provinces are now doing."

Doctor A. H. MacKay: "I would like to give you the interpretation put upon the report of the Royal Commission by the Dominion Educational Association, which met at Ottawa on the 20th, 21st and 22nd of August. There were representatives present from nearly all the Provinces of the Dominion, from the Educational Departments, and where the Educational Departments had no officer present they had other representatives from the Province. The Association was really a delegation from the various Provinces. It was constituted of representatives who discussed the matter from a Provincial point of view, and come to the conclusion unanimously that there was nothing to interfere with the administration of technical education under the scheme recommended by the various Provincial authorities, whose report would be accepted by the Dominion Government, which would merely supply the funds. Questions were asked on all the obscure points, the matter was discussed pretty fully, and we came to the unanimous conclusion that it would be very desirable that a scheme could be carried out as recommended by the Commission, and so far as we knew that would be the wish of the Provinces themselves."

Mr. Arthur White, London: "The danger is in centralizing technical schools. Those who cannot afford to send their children to centralized schools should have the schools brought to them. Artisans can get a practical education for their sons, but I am more concerned in giving them a technical education. The vocational schools started are doing good work. In London our day classes are mostly made up of children between the ages of 14 and 16. The school age has been raised to 16 years, and students who do not care to go to the Collegiate Institute are compelled to go to the industrial classes as far as they can be accommodated. The evening classes are more taken up by men and women. Out of probably 400 employees, 46 or 47 attend evening classes in the different trades. Eighteen of these are married. Sixteen of the wives attend the cooking classes, dressmaking department, and the departments they get suited in. It makes better homes, as the training for the women and girls is just as necessary as for the men. We should take the education to the artisans and artisans' sons, and not centralize it to such an extent that these people cannot afford to send their sons to get an education. The day of apprentices has gone by, and instead of going into a shop, boys will go into a store, where they get much larger wages and have money to spend. As the scheme is worked out, I hope that the Commission will devise means to take the education to the artisan and his sons, and not ask them to send their sons to some place to be educated. We want skilled mechanics, not technically educated men, merely technical and not practical."

Doctor MacKay replied: "For general education the Royal Commission are recommending that a special grant of money be given Provincial Governments to pay to the rural schools in proportion to the cost of prevocational education. Drawing is one of the fundamental subjects in the common rural schools. In the second place the system has a scheme for having each locality represented by an urban, and in rural districts by a rural, committee of development, showing that the idea is to prevent concentration, and to allow every town to provide its equipment. If the local community does not know what kind of industry is best suited, the Dominion Commission has a body of experts from whom that locality can get the information necessary, and who will report upon what kind of industry would be most profitable there, and the most practical form it might take there. In that way this community would have the benefit not merely of a Board of experts which could be obtained by a Provincial Board, but a Dominion Board which would be consulted and supported by the Dominion as well. All this information would be put into the hands of each local community where an industry was possibly or desirable. The whole system of Urban, Rural, and Dominion Development Committees shows that the object is to prevent concentration."

Mr. Fairbairn, of Toronto: "We begin in the public schools and we are altering our system to lead from the lower classes right up through vocational training into industrial work. We also have a commercial course and other courses leading to the universities. Then we want to introduce one other branch, that is, to teach children the fundamentals of farm life. The present tendency of education is to centre everything in the cities. We have no channel leading out from the city to the country, but we hope to add that in the city of Toronto. The farming industry is important, and we should go hand-in-hand with the manufacturing industry for the development of our common country. We have had a good deal of discussion about concentration. For certain purposes, as where you must have an expensive equipment, concentration is necessary, and you cannot scatter that from the city."

Mr. Murray, Montreal: "The whole idea of the Commission is against centralization. It is that the money to be spent in the Provinces is to be spent having in mind industrial work in every community. In drawing their conclusions the Commissioners speak of the secondary education to be provided in the day and evening schools, and at the end they speak of technical colleges. They lay particular stress upon the education to be given in the evening schools for those who are working at their several occupations during the day time, and in this connection they bring in the question of the half-time system. Even if the Dominion Government does not carry out the scheme suggested the report will be of great value to the Provinces in pointing out the needs of communities and the way in which they should be supplied."

Mr. Gordon: "Too much money goes into the large centres. We do not want an army of highly-trained people so much as we want an army of fairly well-trained workmen. It will appeal to many, who have suffered from the class of labor that we have to employ, that the money which the Dominion Government is expected to supply should be expended in teaching the rudiments of vocational education."

Convention Snap Shots, the Story of the C.M.A. Excursion to the Maritime Provinces, as told by the Camera.



In St. John Harbor

The C. M. A. Excursion to the Maritime Provinces

By J. T. STIRRETT

THE excursion started with cold feet. This was not due to any mental despondency or shadows cast upon the spirit or to the usual heart-sinking of leaving home. The sordid truth was that the railways economized on fuel. The cars were scarcely heated between Toronto and Montreal. If the railway officials are wronged by this statement, and if the cars were heated, the heat was divided among the officials. The passengers got none. Their heat was inward and derived from two sources—



1. Mrs. G. M. Murray and Mr. and Mrs. Stanley Pettit, Toronto.
2. Messrs. A. R. Clarke, C. D. Daniels and S. R. Parsons, Toronto.
3. Messrs. S. G. Richardson, A. F. Hatch, H. J. Waddie and W. R. Dunn, Hamilton.
4. Getting on the train.
5. Hamilton Road Race.
6. Mr. and Mrs. R. S. Gourlay.
7. Mr. and Mrs. John Firstbrook and Mr. and Mrs. Alfred Jephcott, Toronto.
8. Mr. and Mrs. W. R. Dunn, Hamilton.
9. Mr. J. B. McCarter, Toronto, and Mr. H. G. Wright, Hamilton.

the smouldering fires of indignation and the bright light of enthusiasm towards the Convention, which the frost could not congeal. So the first Sabbath passed.

Montreal broke the spell. Porters entered the refrigerator cars, knocked the icicles from the beards of some of the male passengers, rubbed the frost out of the others and helped them to alight. It was noticed that a glow appeared on the faces of the excursionists at this point. With some it was the light of expectation, which faded somewhat when the peculiar tightness of Montreal on Sunday, in the vicinity of the station, was realized.

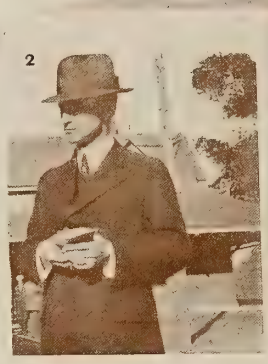


Views at the Algonquin Hotel, St. Andrews-by-the-Sea, where the members of the excursion spent a delightful day.

From Montreal to Halifax and return the railway service was excellent. A special train of Pullmans and diners carried the excursionists east and waited for them at the holiday points.

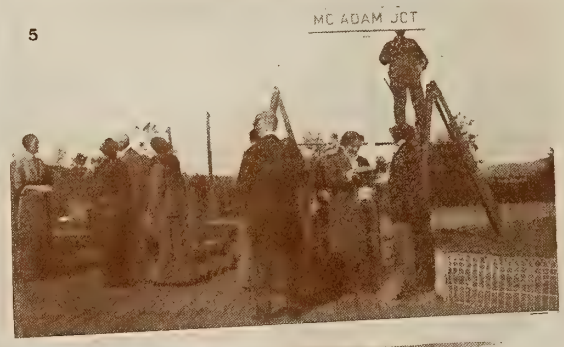
We woke up Monday morning in Quebec. If you have not visited Southern Quebec in September you are no true Canadian, for you are a stranger to the beauty of your own country. The early frost had touched the trees and splashed autumn colors on their summer green. Stubble fields were bare and brown, but men were at work harvesting the corn. Among the trees and stumps of the woods one caught an occasional glimpse of little wild creatures scuttling for shelter as the train thundered past.



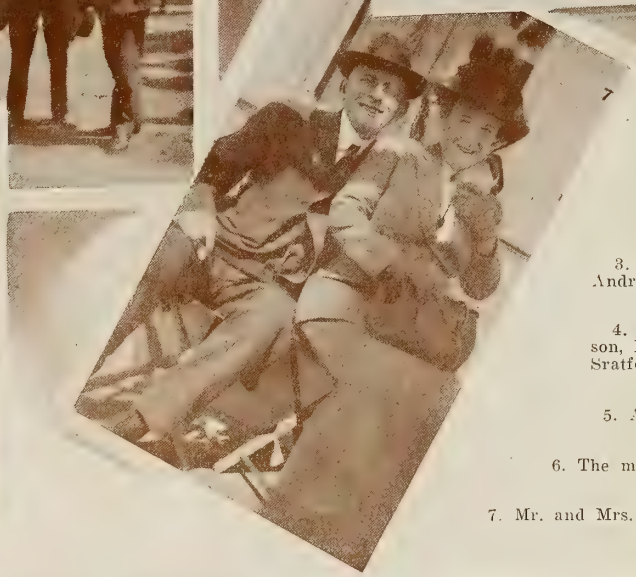












1. Mr. and Mrs. R. S. Gourlay at Truro Station.

2. Mr. G. M. Murray, General Secretary.

3. Mrs. Hayter Reed's cottage at St. Andrews.

4. Messrs. Chas. Moore, W. J. Anderson, H. W. Strudley and George McLagan, Stratford.

5. At McAdam Jct.

6. The man who fed the multitude.

7. Mr. and Mrs. Thomas Jackson, of Clinton.

When we came to St. Andrews-by-the-Sea, someone asked: "Why are we stopping all day? There are only golf links here." There are golf links in St. Andrews. If you don't think so, ask the excursionists who disappeared in full golf uniform and came back at dark. But we were not all golfers. The majority, through the courtesy of Mr. Ganong, went across Passamaquoddy Bay to Eastport, Me., to see the sardine industry. Others took advantage of the splendid roads to drive into the country. The bowling green and tennis courts claimed their share. Sir William Van Horne got the rest. By all accounts this residue had the cream of the day's entertainment. Sir William took them out to



1. Messrs. J. B. McCarter and H. J. Waddie bowling at St. Andrews.

2 On the trip to Eastport, Maine.

3. Sir William Van Horne.

4. At the home of Sir William Van Horne.

5. Mr. A. D. Ganong entertains the visitors with a splendid trip to Eastport, Maine.

6. Going to Eastport.

his farm. He calls it a farm, but his visitors describe it as a world's fair. He showed them his house and its contents, his fields, his stock and his gardens. Finally he showed them his larder, which was the greatest sight of all. As a builder of railroads, farmer and dispenser of hospitality, Sir William is a mighty prince. We regret that we cannot speak of his guests of the afternoon in the same complimentary language. These "Van Horners" came back from their visit, puffed up and haughty. They had no ears for the exploits of those who had seen sardines compressed into cans, or of those who had galloped over the bowling green shrieking, "draw on the kitty," or of even those



1. Messrs. E. G. Henderson, Windsor, and S. M. Wickett, Toronto.
2. Messrs. F. W. Drewry, Winnipeg; Howard Murray, Montreal; and H. J. Waddie, Hamilton.
3. Messrs. George Parke, Hamilton; Geo. W. Sadler, Montreal
4. Messrs. Ross and Campbell, Montreal.
5. Messrs. John Firstbrook, Toronto, and Arthur White. London.
6. Messrs. Geo. R. Copping and J. M. Lowndes, Toronto.
7. Messrs. G. M. Murray and S R Parsons, Toronto
8. Mr. C. B. Gordon, Montreal, the new President.
9. Messrs. J. E. Walsh, Toronto, and William Rutherford, Montreal.
10. Mr. Geo. Y. Chown, Kingston.

who had floated over the links. "Sir William" was their theme. It was no fault of theirs that the pleasures and achievements of the others were not embittered. We pass over the dance that was tendered by the Algonquin Hotel in blissful silence, and no further mention will be made of the pirouetting and hallelujah gliding of certain grandparents, whose names are mercifully suppressed.

We took a rest at Truro, chiefly to give the camera fiends a chance, which they took. Then we started for the Annapolis Valley. Oh! Spirit of Evangeline! Why did you fail us? Our train left the rails before we reached the fruit orchards. It was too anxious. The *Grain Growers' Guide*



1, 2, 3, 7 and 9. Scenes in the plant of the Nova Scotia Steel and Coal Company at New Glasgow.

4. Messrs. N. A. Howie, Walter Laidlaw and J. E. Walsh, of Toronto, at New Glasgow.

5. In the Steel Works, New Glasgow.

6. Scene at station.

8. Plant of Eastern Car Company at New Glasgow.

will probably point a moral from this accident. It believes, no doubt, that the iniquity of the manufacturers was so great that Providence prevented them from invading the vale of poetry and legend. It will say that the sins of the manufacturers were too heavy for the ties and that the rails spread in sympathy with the natural crookedness of their minds.

It is a strange city, Halifax, to manufacturers. Sitting on the hill, overlooking the ocean, it has developed generations of traders. Its front is a saw-tooth of wharves. It is the southern terminus of the Intercolonial. Yet its factories are few. What it possesses are enterprising, some of them



1. On the automobile trip through St. John, N.B.

2 and 3. On the automobile trip through Amherst, N.S.

extensive. But it seems to have refrained from manufacturing. Conservatism and high freight rates are given as causes for the lack of industrialism. That it should be, and probably will be, a great manufacturing centre was the common opinion of the western manufacturers, who explored its streets and sailed about its harbor.

From Halifax the excursion proceeded to New Glasgow, where it was met by a committee of prominent citizens and a special edition of an enterprising newspaper. Under the ample wing of Mr. Thomas Cantley we went through the steel works. It is strange but true that steel works are



1. Mrs. Bishop, St. John; Mrs. Elkin, St. John; Mrs. Dunn, Hamilton; Mrs. White, London; Mrs. Neighorn, Toronto; Miss Morgan, Toronto.

2. Miss Kyle, Ottawa, and Miss Saunders, Goderich.

3. Misses Meadows, Toronto; Miss Saunders, Goderich; and Miss Oliver, Ottawa.

particularly interesting, because they suggest the lower world. In their dark interiors, lighted only by the fires of never-dying furnaces, men toil in the shadows like fiends in the Pit itself. Serpents of fire spin out of nowhere and coil and twist till they grow cold. Doors open to reveal glowing cells, leading downward. Monstrous engines cough out flaming bars and rods. The hammering is like the clatter of swords on all the shields in the Inferno. The nearer view changes all. The working fiends are transformed into men, rather jolly looking fellows, who look as though they liked their business. They are not pigmies. We saw one man in the Nova Scotia Steel and Coal Company's plant at New Glasgow whose chest resembled the North American Continent, with the rest of him in proportion.



1, 2 and 3. Views of St. John, N.B., from the bay.

4. On the harbor trip at St. John.

5. Mrs. Riordan and Mrs. Pettit, of Toronto, on the dock at St. John.

6. Reversing falls at St. John.

We were due in Amherst the same evening. When we arrived we saw a procession of waiting automobiles, which suggested a motor meet. It seems that it is more unusual not to have an automobile in Amherst than to have one. In other words, if you live in Amherst and want to be unique, walk.

We can no longer withhold reference to the choir which was organized in Car No. 4. Its vocalization was splendid, its industry admirable and its endurance tremendous. When it forgot tunes it made them. The trip would not have been complete without it.

We crept into St. John in the dead of night and slept on the train, which did not provoke applause from the local hotels. The St. John manufacturers met us in the morning and drove us



VIEWS OF "THE CHOIR."

Members—Mr. and Mrs. Arthur White, London; Miss C. E. Morgan, Toronto; Mr. Sam Harris, Toronto; Mr. Ross, Montreal; Mr. Rutherford, Montreal; Mr. Stanley, Rochester; and Mr. Moore, Stratford.

about the city. Later we were priviliged to see the splendid harbor of St. John from the deck of a steamer and to estimate the mighty changes which are under way in this once staid United Empire Loyalist city.

We went from St. John to Fredericton by boat. With that peculiar facility with which comparisons are made, some one called the River St. John "The Rhine of America." We prefer to compare it to nothing but itself—a mighty river flowing to the ocean—a great living thing which has its own charms, and its own rare beauty. When we reached Fredericton we went to the fair, which was raging at the time. It was a good fair, and we wished that we could have seen more of it







1. Mr. R. S. Gourlay replying after his birthday presentation at Sherbrooke, Sept. 21.

2. Mrs. Hayter Reed's cottage at St. Andrews-by-the-Sea.

3. Mr. Howard Murray, of Montreal, making the presentation to Mr. Gourlay at Sherbrooke.

At Sherbrooke the next morning the train stopped to allow a presentation to Mr. Robert S. Gourlay, retiring president of the Association. It was his birthday, and Sunday. Those who were present will not forget this simple incident. The special train had slipped into the city and no one was aware of its arrival. The passengers poured out and stood bare-headed in the sun. A little lake shimmered in the distance. The morning was a perfect one in September, the most glorious month of the year in Southern Quebec. In response to a brief address by Mr. Howard Murray, Mr. Gourlay spoke. Justice could not be done to him in reproducing his words without their environment. We prefer to leave them, like jewels, set in the hearts of his audience.



Officers of the Canadian Manufacturers Association for 1913-1914





In the Wonderful Public Gardens of Halifax





Street Scenes in Halifax

DURING the intervals between the business sessions of the Canadian Manufacturers' Convention in Halifax, the visitors availed themselves of the opportunity to see the points of interest in the city. Halifax is famous as an ocean port, and the scenes about its splendid harbor impressed and delighted the manufacturers. The city's development industrially is shown by the illustrations of some of its more important factories. The public gardens of Halifax are wonderful and are designed annually by experts. They are among the chief attractions of the city to those who admire the beautiful. Halifax is well known to students of Canadian history as a citadel and port when Canada was young. Other cities, under the stimulus of manufacturing and agricultural development, have surpassed her in size and commercial importance, but she retains her own peculiar merits, which other cities have in vain tried to secure. The old city by the sea is always interesting.



View of Part of the Great Harbor of Halifax



North Atlantic Fisheries Wharf at Halifax



Factory of N. and M. Smith, Limited, Halifax



Loading Lumber at Deep Water, Halifax



View of Manufacturing District in Halifax



Plant of J. P. Mott and Company, Halifax



Yards of the Nova Scotia Car Works, Limited, Halifax



Plant of Nova Scotia Car Works, Limited, Halifax



The New Cotton Mills at Halifax



Factory of Brandram-Henderson ,Limited, Halifax



Intercolonial Railway Shops in Halifax

EXPENDITURES AT HALIFAX AND VICINITY.

The following works now under construction, planned and proposed:—

New Railway Terminals—Union Passenger Station, etc.	$35,000,000
New Railway Piers at Present Terminals	3,500,000
Halifax & Eastern Railway and Equipment	5,500,000
Acadia Sugar Refinery at Woodside	3,000,000
Fortifications, etc., Department of Militia and Defence	1,000,000
Proposed Hotel in connection with Terminals	500,000
Extension to Dry Dock and Plant	1,000,000
New Public Market	150,000
Dalhousie University Buildings, etc.	500,000
Extension to Richmond Railway Yards	170,000
New Business Buildings Planned and Under Construction	980,000
City Reservoir, Water Tower and Pipe Extension	150,000
Western Slope Sewerage	100,000
New Buildings, Quarantine Station	30,000
New Ferry Terminal	25,000
Incinerator Plant	50,000
Building Permits for 1913, estimated (1912—$564,720)	600,000
Grand Total	$52,255,000

TRADE DISPUTES DURING SEPTEMBER, 1913.

According to the record maintained in the Department of Labour there was continued improvement in September. There was a still further decrease in the number of strikes and lockouts in existence and a favorable record is shown when a comparison is made with the same month of last year. There were altogether eleven trade disputes in existence throughout the country, as compared with eighteen last month and twenty-one during September, 1912. Only two of these occurred during September. Of those that were in existence before that time, the only one of importance as affecting industrial conditions to any great extent was that of the coal miners on Vancouver Island, which remained unsettled at the end of the month, although there were not so many men out of work as a result of it as before. Upwards of 78,000 working days were lost through strikes during September, as compared with a loss of 109,530 during the preceding month.

PRICES REMAIN HIGH.

The Department's index number of Wholesale Prices stood at 136.0 for September, as compared with 136.2 in August, and 132.7 in September, 1912. The slight fall was due to lower prices for fresh fruits, vegetables and canned salmon, but some important advances occurred in eggs, fish, sugar, cream of tartar, jute, silk, anthracite coal, some building materials and starch. In retail prices, eggs, butter and coal were higher but potatoes declined.



Halifax Hotel, Halifax



Technical College, Halifax, Where the Sessions of the Canadian Manufacturers Association Convention Were Held

TECHNICAL EDUCATION IN NOVA SCOTIA

By F. H. SEXTON

Director, Department of Technical Education, Halifax

THE system of technical education for Nova Scotia was established by an Act of the Provincial Legislature on April 25, 1907. This Act provided for a Provincial Technical College at Halifax to carry on professional engineering training and industrial research, schools of instruction for coal miners and stationary engineers in colliery communities, and local technical schools to furnish industrial education of such character and extent as will most effectively meet the requirements of the population and industries of the industrial communities.

The Technical College furnishes professional training for the degree of bachelor of science in civil, electrical, mechanical and mining engineering. Its courses and standards are so nearly like those of the engineering departments of McGill, Queen's and Toronto Universities that no special mention need be made of this branch of the technical education system here. The province has appropriated over $300,000 for buildings and equipment of the college, and have maintained an efficient corps of professors and instructors out of the current revenue at a cost of about $25,000 a year.

The schools of instruction for coal miners and stationary engineers are unique in this country. Schools of similar character are common in Great Britain and Europe, but Nova Scotia is the only place where they are in use on the North American Continent.

In Nova Scotia, as elsewhere in important coal-producing areas, colliery officials are required to pass examinations and secure certificates of competency before being allowed to fill responsible positions in and about a colliery. These examinations cover such subjects as scholarship, mine ventilation, methods of working mines, surveying, geology, mechanics, first aid to the injured, etc. For the higher grades of certificates it is necessary that the prospective official shall have a good working knowledge of geometry, algebra, trigonometry, English composition, physics, mechanism, geology, mine plans, and surveying, in addition to the specific subjects that relate to practical mine exploitation. The ambitious American miner has usually been required to obtain this knowledge by himself or through the medium of a correspondence course.

In Nova Scotia there is an evening technical school for coal miners in seventeen colliery towns, or practically every coal-mining community in the province. Four permanent mining instructors and over thirty-five part-time teachers are engaged in these schools. The permanent instructors are men who hold the highest certificates of competency and who have also had long practical experience in coal mining. These

men devote their whole time to the work of the school. The part-time teachers are usually men who are engaged in responsible positions in and about the colliery and give a certain number of their evenings to the work of instruction. The classes meet twice a week for a two-hour session through a period of eight months of the year.

At the opening of schools in October an examination in arithmetic and English composition is given to determine the proficiency of the scholars. If the pupils are deficient in their knowledge of these subjects, they remain in a preparatory class for the winter session. The boys in the public schools in colliery towns usually leave the school to go to work at the statutory age limit of compulsory attendance at fourteen. Very often they have not passed the seventh or even the sixth grade of the common school. The boy very often works in the mine for five or six years before he realizes the necessity for further education in order to rise to a more responsible and lucrative position. By this time he has forgotten a great deal that he learned in school. Hence the preparatory class in the coal mining school. In this class he is given instruction in the necessary portions of mathematics and English, all taught in a practical manner as applied to his daily work and needs.

After securing the requisite knowledge in mathematics and English, the student enters the coal mining class. In the first year course he is given instruction in the subjects of ventilation, surveying, and methods of work. In the Spring he is fitted to take the examination for overmen. In the second year course he is more thoroughly drilled in the subjects before mentioned and also in mechanics and geology. At the end of this year he is fitted to pass the examinations for underground manager. At the end of the third year's course he is usually competent to secure a manager's certificate.

The Coal Miners' Schools have filled a great need. They have given an opportunity to ambitious men engaged in the collieries of Nova Scotia to secure the educational training necessary to secure the certificates of competency for the most responsible positions around the coal mines. They brought the necessary technical education to the door of the worker so that he could study under a competent teacher while he was earning his living. They have provided enough certificated officials for the rapidly expanding coal mining development in the Province. They have enabled native born miners to secure the most lucrative and responsible positions in the collieries and have been a general educational force in a class of industrial communities where extensive educational facilities are usually sadly neglected and therefore scantily provided.

The scope of these classes has been continually widened. Instruction in mechanical and machine drawing has been provided which has enabled some young men to qualify themselves as draughtsmen in the colliery offices, and also taught many mechanics to interpret quickly and accurately drawings and blue prints. With the constantly increasing tendency to electrify the mechanical equipment in the coal mines, the necessity arose of giving some adequate instruction in the principles of electricity and some knowledge of dynamo-electric machinery. Accordingly classes in practical electricity were provided for in the more populous mining centres. A three-year course of fifty sessions each winter was offered and have been well attended by members of the mechanical staff. These classes were generously provided with models, dynamo-electric machinery and measuring instruments, so that all of the theoretical instruction could be supplemented with practical testing and laboratory work. Classes have also been started in mining science for the boys of the grades VII., VIII. and IX. in the public schools. The tendency of boys to leave school at an early age in mining towns has been already noted. Part of this tendency is due to the fact that the ordinary common school course is barren of anything that appears to fit the youth for practical life in the mine. Part of the public school course covering the subjects of nature study and drawing was therefore replaced with a course in mining science, which included physics, chemistry, geology, and mechanical drawing. All of these subjects were taught in a way that was specially adapted to practical coal mining. The public school teacher was not entrusted with this special work, but it was placed in charge of the regular coal mining instructor, whose knowledge and experience enabled him to make it vital to the boys. This innovation has been tried out for three years. It has made the boys interested in their regular school work; it has caused many of them to remain in the public school for a year or two after they have reached the limiting age of compulsory attendance; and it has caused many of them to enter the evening Coal Mining classes as soon as they went to work without any hiatus in their education. Further than this, the mining science course has met with hearty approval from



Architectural Drawing Class



Building Construction Class

TECHNICAL COLLEGE, HALIFAX

the parents of boys in the public school who have felt that the common school course was ill adapted to teaching things that prepare children for practical life.

Associated with the coal mining schools are the engineering schools. It is necessary for hoisting engineers in collieries to take Government examinations before they secure certificates of competency as engineers. The men who are not proficient enough in mathematics and English to enter the engineering class attend the preparatory classes as the coal miners. The instruction in engineering covers the theory and practice of installation and operation of boilers, steam engines, pumps, compressors, and other mechanical equipment usually found in modern colliery plants. The instructors are part-time teachers who have secured the highest form of certificate and are employed in responsible positions on the mechanical staffs at the mines.

Another set of schools has been established in industrial communities other than mining towns and adapted to the needs of the greater numbers of workers in the towns. These are the type known as evening industrial continuation schools. Instruction is offered in those subjects which constitute the theory and science underlying the different trades and vocations. All of the teaching is adapted to the needs of the wage-earners and is made as practicable as possible. The aim is to give the students the mathematics, drawing, science, etc., which they should possess to make them intelligent and efficient workers. In some instances trade classes have been carried on in which apprentices have been taught skill in the actual hand work of their trades, but the bulk of the work in the schools has been of the type first mentioned. Some effort has been made to establish schools of navigation in fishing centres, but as yet they have been only partially successful. Instruction in commercial subjects has been given and the classes have been very well attended, but the work of the private business colleges has been found to be so efficient and the charges so reasonable that this work has not been extended beyond the elements of business practice. A large number of the pupils at entrance are found to be deficient in their elementary knowledge of mathematics and English, so that preparatory classes in these subjects are necessary in every centre where the schools have been established. Instruction is now offered in the following subjects:—



Studying Electricity in Halifax Technical College

Practical Arithmetic.	Elements of Chemistry.
Business English.	Elementary Chemical Analysis.
Practical Mathematics.	Metallurgical Chemistry.
Mechanical Drawing.	Garment Making.
Machine Drawing.	Single Entry Bookkeeping.
Machine Design.	Double Entry Bookkeeping.
Architectural Drawing.	Navigation.
Building Construction Drawing.	Plain Sewing.
Architectural Design and Estimating	Surveying.
Elements of Electricity.	Blouse Making.
Dynamo-Electric Machinery.	Skirt Making.
Alternating Current Machinery.	Stenography and Typewriting.
	Cookery and Household Decoration.



Dressmaking in One of the Class Rooms

It has been found inadvisable to give these classes to students without the payment of some small sum of money on their part. In each class the pupil is required to pay a deposit varying from $2.00 to $4.50, depending on the subject. A refund is made to the student at the end of the session based upon his attendance. If he has been there every night he receives the whole of his deposit and the class costs him nothing. For other percentages of attendance down to 60 per cent., a sliding scale basis of refund is in force. If the student falls below 60 per cent. attendance he receives none of his deposit. It has been found that this policy has been a great incentive to constant attendance. Whole classes in which the average attendance for the complete session is over 90 per cent. are quite common.

Up to the present time these industrial continuation schools have been established in six

different manufacturing centres, viz., Amherst, Halifax, Sydney, New Glasgow, Truro and Yarmouth. It is five years since they were inaugurated, but the total attendance has increased from about 600 to nearly twice that number in that time. In all the schools the attendance last year was 1,952. The employers have co-operated heartily with all the efforts that have been made to introduce industrial education. A number of firms and companies, such as the Nova Scotia Steel & Coal Co., I. Matheson & Co., Robb Engineering Co., and others, compel their apprentices to attend the classes and encourage all other employees to do likewise. A large number of young men and women have advanced themselves to positions of higher responsibility by means of the knowledge gained in the schools. Some men who have found themselves in lines of work for which they were not adapted have been enabled to change their occupations through the medium of the technical classes and to enter another vocation in which they found



Halifax Harbor, From Technical College



The Garment Working Class

joy in working. A questionnaire was circulated among the pupils in the schools a year ago and the following information obtained from 700 of the pupils:—

	No.	Per cent.		No.	Per cent.
Grade I.	8	1.3	Grade VI.	74	11.4
Grade II.	7	1.1	Grade VII.	78	12.5
Grade III.	23	3.7	Grade VIII.	154	24.3
Grade IV.	41	6.4	High School	178	27.8
Grade V.	74	11.4			

The weekly wage of the students was as follows:—

	No.		No.
Less than $5.00.....	97	$12.00 to $15.00	103
$5.00 to $7.50	108	$15.00 to $20.00	47
$8.00 to $10.00	81	$20.00 and upwards	26
$10.00 to $12.00	144		

The total amount of money that is spent on the College and all the schools is about $50,000.00 a year. This is nearly equally divided between the Technical College and the Technical Coal Mining Schools. The great need for extending the work to establish apprenticeship part-time and trade schools is more money. Public opinion is ripe for this extension of industrial education. The co-operation of employers and labor organizations is assured because of the great benefits already ensuing from the modest efforts that have already been made.

The occupations were as follows: Bricklayers 2, carpenters 46, electricians 44, plumbers 10, painters 8, tinsmiths 8, blacksmiths 13, machinist apprentices 54, machinists 87, molders 6, pattern makers 12, chemists 8, printers 8, draughtsmen 10, tailors 10, stationary engineers 51, coal miners 168, book-keepers 2, clerks 110, attending school 24.

The ages of the students were as given below.

Years.	No.	Years.	No.
11	2	21	37
12	3	22	35
13	7	23	20
14	27	24	24
15	33	25	28
16	53	26 to 31	112
17	51	31 to 36	75
18	58	36 to 41	28
19	43	41 to 50	31
20	44	Over 50	5

In response to the enquiry as to the grade at which they left school the following replies were elicited:—



Government House, Halifax

NEW GLASGOW, NOVA SCOTIA

By THOMAS CANTLEY

THE town of New Glasgow, situated one hundred miles north-east of the Nova Scotian capital and old fortified city of Halifax, lies in the valley of the East river at a distance of about six miles from the point where it flows into Pictou harbor, and has a most advantageous position from a manufacturing standpoint, occupying practically the centre of the northern outcrop of the Pictou coal basin, which is about twelve miles in length, with an average breadth of two to three miles.

This territory contains several seams of coal, one overlying the other, the most important perhaps being the celebrated Ford pit seam, which is upwards of forty-eight feet in thickness. From this district coal has been mined and shipped during the last century, for the first half of which the East River and the harbor of Pictou were utilized as the agency by which the coal was conveyed to the principal consuming markets abroad. It is only within the last thirty years that any considerable quantity of the large tonnage of fuel produced in this neighborhood has been utilized by its native industries.

The town, most pleasantly situated, is built on both banks of the East River, the largest of the three rivers flowing into the harbor of Pictou and draining a large and fertile valley, extending for twenty miles to the south.

As in the case of many important towns situated on rivers, New Glasgow lies at the head of the navigable portion of the river, and whereas in former times a draft of twelve to fifteen feet of water was sufficient to meet the demands of the vessels of that day, owing to the much larger tonnage of modern steamers, such depths are now found to be totally inadequate, in view of which large dredging operations are now being carried on on the East River, which when completed will make New Glasgow an ocean port, with a uniform depth of water of twenty-five feet from New Glasgow to the sea. This will permit steamers of 6,000 to 8,000 tons dead-weight capacity loading and discharging cargoes at the docks and wharves of the town.

Primarily the town grew up as a ship-building centre, owing to its position at the head of navigation on the most important river flowing into the lower St. Lawrence Gulf. Ship-building and seafaring were thus its principal business for the first fifty years of its existence, during which its ships, its town-born captains, and sailormen were seen on all the seven seas and brought back to their home town the profits of their adventuring, which were invested in more ships.

During that period it also did much of the business of supplyiug the coal mines lying on its southern border with provisions and goods for its workmen and machinery for its mines, while its old men who sat in the sun daily watched the passage through it of the output of the collieries on its way to the sea.

With the advent of iron sailing ships, followed soon after by steamers, the exhaustion of the original forest timber and the resultant decline of wooden ship-building, some other avenue for the constructive genius and energy of its Scottish population had to be found. The fact that coal for manufacturing purposes existed in large quantities immediately under their feet, was a controlling feature in determining the course in which their future energies were to be directed. The immediate result was that several foundry and engineering shops were called into existence, the most important being that of I. Matheson & Company, established in the year of Confederation, namely, 1867. Later came the Nova Scotia Forge Company, the Nova Scotia Steel Company, W. P. McNeil's bridge and structural works, Baillie-Underwood Company (agricultural implements), The Brown Machine Company and J. W. Cummings & Son (mining machinery), the Steel Furnishing Company—all of which, with the exception of I. Matheson & Company, grew up under the shadow of the pioneer producer of the basic iron and steel products, the Nova Scotia Steel and Coal Company. Here also was established, about 1882, the Nova Scotia Glass Company, also a large consumer of coal and the first industry in the province to bring in a colony of foreign artisans to establish an industry up to that time unknown in the country.



MR. THOMAS CANTLEY
Nova Scotia Steel and Coal Company, Ltd.
New Glasgow

Within the town, or if not within its actual borders, close by, was worked out many of the mining and manufacturing problems in connection with the industrial life of Conada.

Here coal was first mined in a commercial way. Here was produced the first Siemens-Martin open-hearth steel, also the first basic steel made in Canada. Here was installed the first steel ingot cogging mill which left the shores of Great Britain, and here this mill cogged the first steel ingots ever rolled in Canada. Here was set up and worked for many years a washery to wash coal in a commercial way for the production of coke, this being the first—certainly in Canada—and if we mistake not, the first on this continent. Here, again, the first on the continent, were built and operated the first retort coke ovens of modern type; as many years previously had been built the first Beehive ovens. Here were the first works which converted the native ores into steel ingots, steel bars, steel forgings, and here were made the first steel railway car axles in Canada. And the Scotia Company, having their headquarters here, were the first to develop the now widely known Wabana ores, the first to mine them, the first to smelt them, the first

to introduce them to the markets of Europe and America. They were also the first to win these ores from underneath the sea, and, by demonstrating the value of Wabana ores and by almost simultaneously proving that the culm or small coals of Cape Breton could be washed so as to remove the sulphur and when treated in retort ovens produce a satisfactory blast furnace coke, thereby laid the foundations on which has been reared the entire iron and steel industry of Eastern Canada.

Later here was installed the first hydraulic forging plant in Canada, while at the same time was laid down the first fluid compression plant in the Dominion which to-day is undoubtedly the finest of its type on this continent.

For forty years the initial step in the establishment of a great industry was taken by the laying down of a steam forging plant, the management of which—as their resources grew—worked backwards until the enterprise in turn controlled every stage of the production of its own coal, its own iron ore, and fluxes, operating its own furnaces for the transforming of these raw materials into crude iron and steel, which in turn is manufactured into a wide range of steel products that find their final market throughout the western provinces of the Dominion.

Following the pioneer enterprise a score of others, each beginning in a small way and growing with the growth of the country, sprang up, a partial list of which includes: Eastern Car Company, Limited, manufacturers of steel cars; James Eastwood, manufacturer of jewelry; Eastern Steel Company, Limited, engineering and structural steel workers; J. W. Cummings & Son, Limited, manufacturers mining tools and equipment; I. Matheson & Company, Limited, general engineers and boiler makers; The Standard Clay Products, Limited, manufacturers of vitrified sewer pipe and building blocks; Francis Drake, manufacturer of aerated waters; A. McPherson & Sons, general engineers; Johnson & McDonald, millers; D. Grant & Sons, manufacturers of wood builders' materials; The Steel Furnishing Company, manufacturers of light structural steel work; Munro Wire Works, Limited, manufacturers of springs, mattresses and wire work; Bailey-Underwood Company, Limited, manufacturers of farm and garden tools and steel springs; Fraser Machine & Motor Company, manufacturers of marine and stationary gasoline engines; Nova Scotia Brick and Tile Company, Limited, manufacturers of red brick; John E. Garrett, manufacturer of rug and mat patterns; Cameron & Fraser, manufacturers of dressed lumber; Humphreys Glass Company, Limited, manufacturers of glass products; Canada Tool & Specialty Company, Limited, manufacturers of rifle sights and fine tools; Thompson & Sutherland, Limited, manufacturers of stoves and tinware; Rood & McGregor, manufacturers of rough and dressed lumber; John J. Grant, manufacturer of house builders' supplies; Maritime Bridge Company, Limited, manufacturers of bridges and structural steel; Thomas Arthur & Son, manufacturers of farm wagons and carts; Dewar & Robertson, manufacturers of dressed lumber.

New Glasgow sits in the centre of the most important and largest combined mining and manufacturing district of the Maritime Provinces. Surrounding it is a belt of half a dozen smaller towns more or less dependent upon the older town—"The Buckle of the Belt," viz., Stellarton, and Westville on the west, Thorburn on the east, Ferrona on the south, and Trenton to the north, with a combined population of 30,000 people within a radius of six miles.

New Glasgow's growth, while slow, has been continuous; the town has had no booms and no setbacks. Scottish caution and deliberation, Scottish thrift, Scottish dourness, if you will—coupled with Scottish perseverance and the knowledge got by reading and gleaned by travel; for the Bluenoses even as their forebears the Scot, are great travellers. All these things have been factors bearing on the present solid position and brilliant future of Nova Scotia's most progressive and best known town, whose real growth and far-reaching activities have only really just begun, a community which within a score of years will have an industrial population of one hundred thousand people.

NEW GLASGOW'S NEWEST INDUSTRY.

One of the most important plants in New Glasgow is the splendid large new plant of the Eastern Car Company, Limited. This plant is entirely new, the company having been organized some two years ago with a capital of two million dollars. They have also issued one million first mortgage bonds. The officers of this company are: Mr. J. C. MacGregor, President; Mr. R. E. Harris, Vice-President; these gentlemen, with the following four, constitute the Board of Directors: Hon. J. D. MacGregor, G. Forrest McKay, Thomas Cantley, and R. E. Chambers. To people familiar with the large industrial movements of Eastern Canada these names need no introduction, and it will at once be seen that this company is closely allied with the Nova Scotia Steel & Coal Company, which has had such a successful history.

This plant is situated on the line of the Intercolonial Railway, and the Government is now making harbor improvements which will put them on tide water. Their plant adjoins the plant of the Nova Scotia Steel and Coal Company, where much of their steel will be manufactured. There are large coal mines within two miles of the works and the general industrial conditions of New Glasgow are excellent, so that all conditions taken together this plant should become a very strong factor in the car-building business in Canada. The main building, which is 1,100 feet long, consists of four spans, each 90 feet wide. All the departments have been centred as much as possible under one main roof, and arranged in such a way that the material in passing through the plant will travel a comparatively short distance from one department to another. The whole layout is planned with a view to reducing the handling of material to a minimum. The buildings are steel frame and concrete walls, with ample light through the sides and monitors.

All the equipment in the plant is the very latest that can be obtained, and all machines are individual motor drive. Electricity is used for all work as far as practicable, electric hoists and portable electric tools supplanting the usual type of air operated machines, the desire being not so much to keep down the first cost of this plant but to equip it for the very best possible economy in operation. Three of the four spans are supplied with 10-ton travelling cranes which traverse the entire length of the building. One feature of the plant which deserves special mention is the equipment for the automatic spacing and punching of structural material. This consists of four large Thomas spacing tables which do accurate and rapid work without the necessity of using templets for marking off the work; these machines automatically punch any pattern desired without a templet, and at the same time give greater accuracy than ordinary hand methods of spacing. There are two large hydraulic presses; also a full equipment of hydraulic riveters of various types.

A wheel foundry is being erected with a capacity of 200 wheels per day, with provision made to double the capacity when occasion requires. The wheels from this foundry are rolled directly into the truck shop, only 60 feet away.

A paint shop 700 feet long, containing four tracks, will be built for the painting and finishing departments. At present this is being done in the main building. There are numerous other buildings, such as dry kilns, lumber storage, general store-room, and paint and oil storage buildings.

The power plant is situated nearly midway of the large building, being located as centrally as possible without being



Forge Shops of Eastern Car Co., New Glasgow, N.S.

too far away from the supply of condensing water, which is taken from the East River, a thousand feet away, and is partly salt. After the Government locks are completed this will be fresh water and will be constantly kept at high water mark. The power plant has a nominal rating of 3,000 h.p., good for a guaranteed continuous over-load of 50 per cent. All the piping and main cables are carried in conduit from the power house to the various parts of the plant, a main tunnel being provided the entire width of the building, 7 feet wide and 7 feet deep, giving easy access to all this equipment. The heating of the plant will be done largely by exhaust steam carried in mains through these tunnels from the power plant.

A large modern office building of brick and cement has been provided. All the buildings throughout the plant are of a specially substantial type, very little wood being used in any of the construction. Taken altogether, the plant as a whole is one of the finest samples in Canada to-day of modern, high grade industrial engineering.

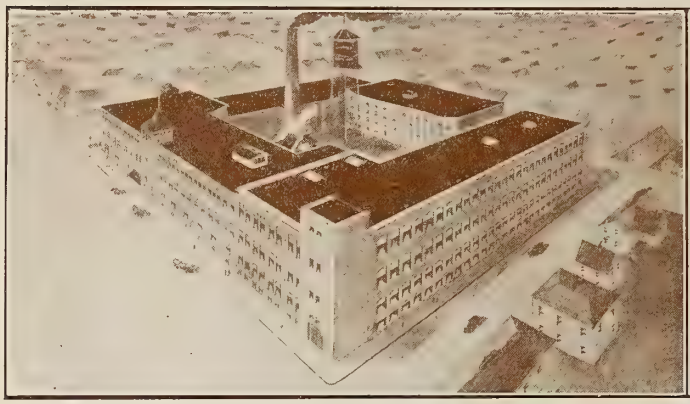
The first order of cars is being turned out for the Grand Trunk Railway. Shipments began about October 1st, 1913. The plant was laid out for an initial capacity of 25 cars per day, with a view to eventually doubling this capacity. Ground for this plant was broken in July of last year, the design and construction of the plant being carried out by Horace H. Lane, consulting engineer, of Detroit, who has had an organization on the ground since the work started. Mr. H. B. Douglas, formerly of the Standard Steel Company, Hammond, Indiana, is manager of the plant.

The low cost of living makes Fredericton an ideal home, particularly for the artisan. A workingman's house can be rented at $6 and upwards per month. The various commodities can be secured at reasonable prices, all the business establishments being up-to-date in every respect. Fredericton also enjoys a free country market, where the consumer may purchase direct from the producer.

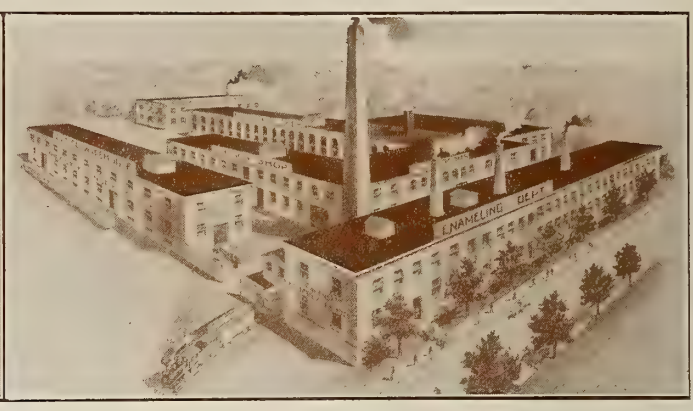


View of Punching, Shearing and Steel Erecting Bays of Eastern Car Co., New Glasgow, N.S.

AMHERST, NOVA SCOTIA



Amherst Boot and Shoe, Ltd.



Amherst Foundry Co., Ltd.

ONE of the cities of the Maritime Provinces sure of an industrial future is Amherst, N.S. It has at present twenty-five industrial establishments, which can be described as enterprising and successful. Among the most important are the Canada Car & Foundry Company, which employs 1,600 men and manufactures $4,000,000 worth of goods annually; the Amherst Boot & Shoe Co., Limited, employs 250, annual output, $1,000,000; the Amherst Foundry Company, Limited, employs 150, annual output, $300,000; the Hewson Pure Wool Textiles, Limited, employs 275, annual output, $500,000; the International Engineering Co., Limited, employs 275, annual output, $750,000; the newest industry, Amherst Pianos, Limited, employs 100.

The city has nearly 12,000 people, paved streets, excellent water and sewerage systems, motor fire apparatus, a modern fire alarm system and an electric power plant which supplies power from current generated at the coal pit's month.

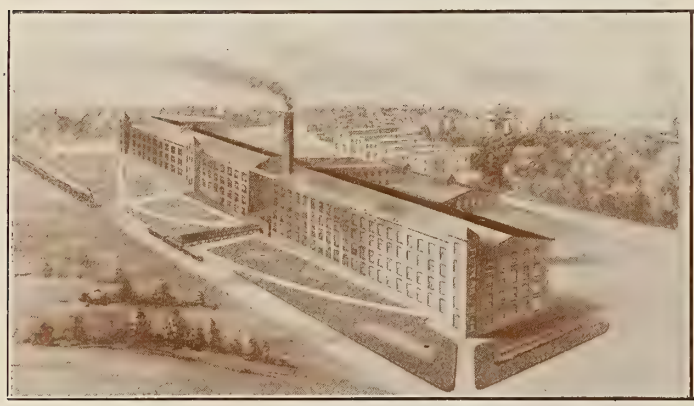
The industries of Amherst turn out 400 passenger and freight cars per month, 750 to 850 tons of rolled bar iron and steel per month, 300 to 400 tons of grey iron per month, 700 to 850 tons of car axles per month, 700 to 850 tons of car wheels per month, 500 tons of malleable castings per month, 800 to 1,000 tons of blacksmiths' forgings per month, $250,000 worth of enamelware per year, $75,000 worth of ranges and steam furnaces per year, $150,000 worth of heavy ribbed underwear per year, $75,000 worth of fine ribbed underwear per year, 100 to 200 tons of bolts per month, and 50 to 100 tons of nuts per month.



Amherst Pianos, Ltd.



Christie Bros. and Co., Ltd.



Hewson Woollen Mills, Ltd.



Nova Scotia Carriage and Motor Co., Ltd.

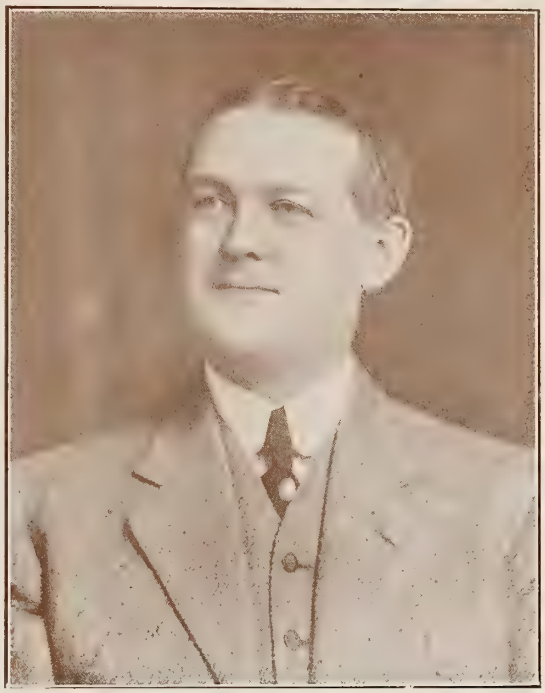
MR. GEO. T. DOUGLAS.

Mr. George T. Douglas, manager of the Canadian Car and Foundry Company, who has just been elected to the Executive Council of the Association to represent Nova Scotia, started his business career at twelve years of age when he sold newspapers and acted as messenger boy for the Western Union Telegraph Company, picking up telegraphy and acting as operator for a short while.

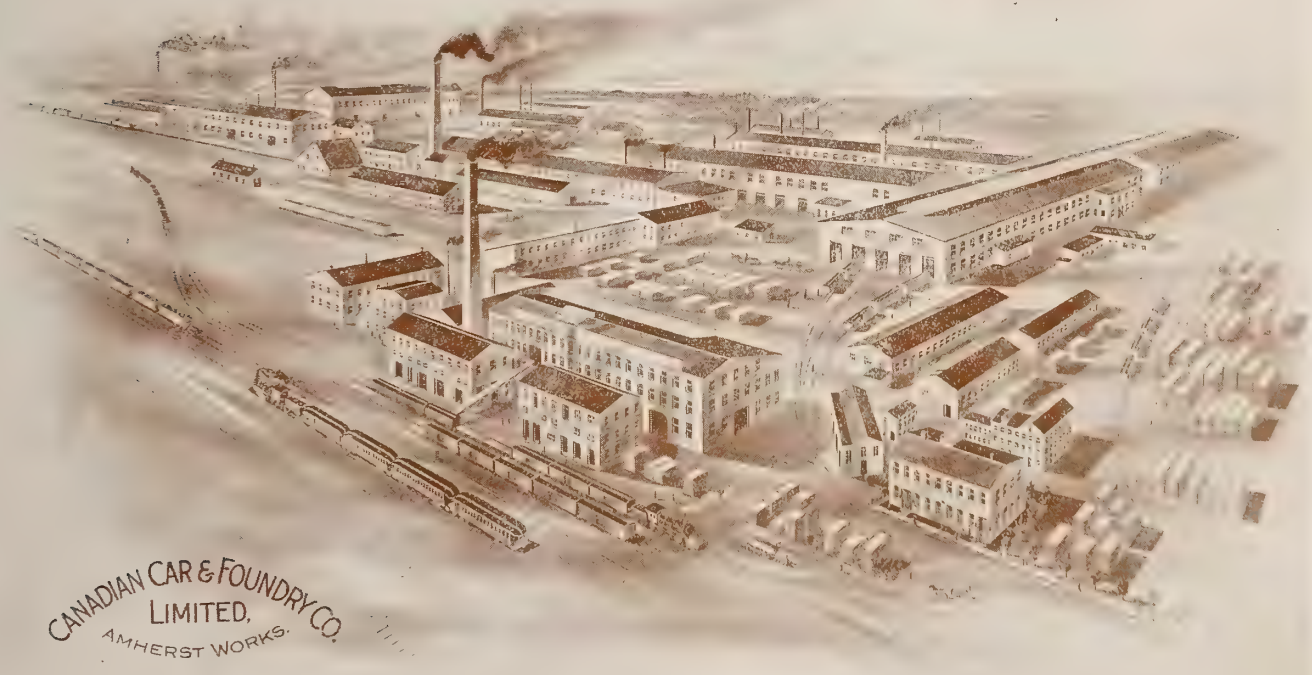
At fourteen years of age he entered the employ of Rhodes, Curry Co., Amherst, who were operating a woodworking, house-building and general contracting business in Amherst, and it was just at this time that they started building cars in a small way. He began as office boy, gradually taking on other of the more important positions in the office of the Company until he was made assistant to the General Manager. Then came the amalgamation of three Canadian Car Companies into what is now known as the Canadian Car & Foundry Co., Limited, and he was placed as Superintendent, and later Manager, of the Amherst works, which position he is now filling.

For many years, and while still with the Rhodes, Curry Co., he was a partner in the firm of Douglas Bros., insurance, real estate and general commission business, and was also connected with the lumber business. At present Mr. Douglas is manager of the Canadian Car & Foundry Company's eastern business, manager of the Brooklyn Lumber Co., vice-president of the Amherst Pianos, Limited, director of the Nova Scotia Carriage & Motor Car Co.

Mr. Douglas believes that the cities of the Maritime Provinces, and especially Amherst, will become industrial centres of great size and importance. He has watched Amherst grow from an unknown village to a busy city, the manufactured products of which are welcomed in all parts of Canada. Look at his picture and you will see an optimist. No pessimist could rise from the position of telegraph messenger boy to the management of the plant which appears at the bottom of this page. There is nothing he is so optimistic about as the future of Nova Scotia. Mr. Douglas was active in securing a visit to Amherst by the members of the manufacturers Halifax excursion. They were not sorry that they went.



MR. GEO. T. DOUGLAS
Canadian Car and Foundry Company, Ltd., Amherst





Great Plant of the Atlantic Sugar Refinery, under construction at St. John, N.B.

THE GROWTH OF ST. JOHN, N.B.

THREE hundred years ago Champlain and De Monts steered their sailing vessel into the mouth of the River St. John on the festival of St. John the Baptist. The coincidence named the city. It is only fitting that a city the site of which was discovered and christened by sailors and traders should become a shipping port. To-day the future of St. John as a great harbor is assured. One has only to glance over the following list of works now under construction, planned or proposed in the city to be certain of this fact.

Dry Dock, Piers, Breakwater, etc., East St. John, present contract	$11,500,000
Canadian Pacific Railway, Piers, Warehouses, Extension of Yard, New Elevator, West St. John	2,000,000
Federal Government, Dredging West St. John	900,000
Valley Railway Line to St. John	9,000,000
Armory, erected by Militia Department	350,000
Provincial Government Bridge, connecting St. John with West St. John	500,000
Atlantic Sugar Refinery	3,500,000
Federal Government, Post Office Building	500,000
Federal Government, Marine Dept. Wharves, Repair Plant, etc. Tenders called for	250,000
New Manufacturing Plants and Extensions (estimated)	2,000,000
Additional Wharves and Warehouses to complete present plan of harbor development, East St. John	14,000,000
Additional Wharves and Warehouses for development, West St. John	3,000,000
New Steel and Iron Works	4,000,000
Eight new Manufacturing Plants (sites already secured)	1,250,000
Grand Trunk Pacific & Valley Railway Terminals	1,000,000
Upwards of two hundred dwellings and tenement houses	8,000,000
	$62,000,000

The city is also making satisfactory industrial progress. In 1900 the value of her manufactured goods was $6,712,769; by 1910 it had risen to $10,081,667, an increase of 50 per cent.

The construction of industrial buildings shows how manufacturers are preparing for the trade which the future will bring.

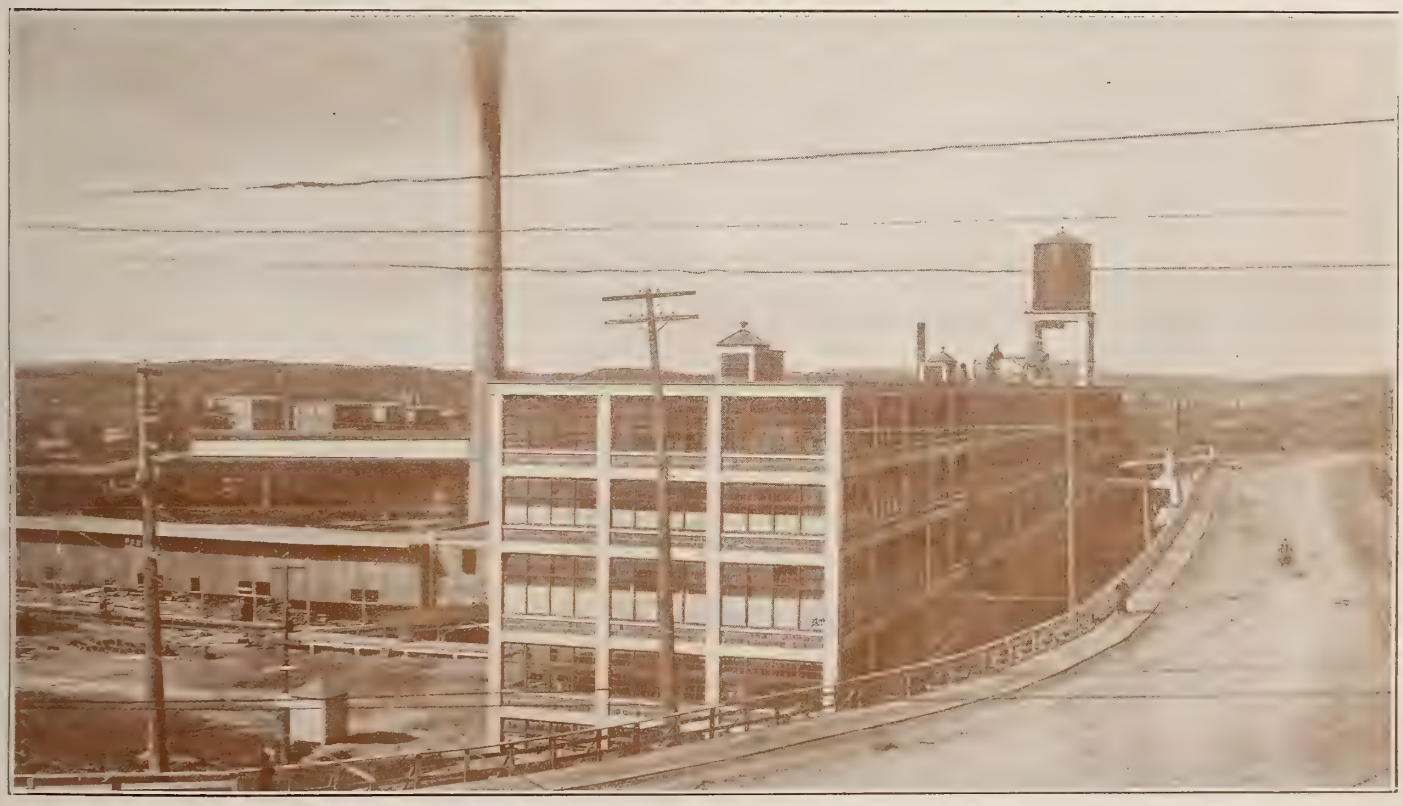


York and Cornwall Cotton Mills, Ltd., St. John



The Partington Pulp Company's Plant at St. John, N.B.

The Atlantic Sugar Refinery which is being erected at the extreme south end of the city, where they have eight and a half acres of land with wharves and railroad connection, is beginning to make a very good showing, as the steel work is going up rapidly. It is stated that the buildings will be up by the first of January.



Plant of S. Simms & Co., St. John, N.B.



MR. S. E. ELKIN
Maritime Nail Co., St. John, N.B.

It is expected the plant will be ready for operation within a year, employing between 500 and 600 men, producing 2,000 barrels of sugar a day. The most modern machinery will be installed, and there will be no refinery in Canada with better equipment. It will cost between three and four million dollars.

The Canadian Pacific Railway are completing a million bushel concrete grain elevator on the west side of the harbor, and are putting in ten additional tracks to take care of the additional business which the new elevator will bring to this port.

The Oil Motor & Manufacturing Company, Ltd., are erecting a plant on the Marsh Road for the manufacture of oil engines.



The Maritime Automobile Company have just completed a $50,000 plant. The T. S. Simms and Company's new factory cost about $400,000. The Partington Pulp and Paper Company are building a huge extension to their plant. The company own about 375,000 acres of timber lands, 225,000 of which is freehold. These lands were formerly owned by the Alexander Gibson Railway and Manufacturing Company, known as the Nashwaak River lands, and form the second largest block of freehold lands in New Brunswick. The company manufacture bleached sulphite only; the annual output of about 18,000 tons is sold in Canada and the United States.

T. McAvity & Sons estimate that their new plant will cost $1,000,000. Other recent extensions are: Canada Brush and Broom Company, $50,000; Ames-Holden Company, $75,000; Union Foundry and Machine Works, $25,000; and the Petrie Manufacturing Company, $60,000.



Atlantic Sugar Refinery, St. John, as it will appear when complete

MARITIME PAPERS WELCOME MANUFACTURERS.

The newspapers of the Maritime Provinces were practically unanimous in welcoming the Association excursion and convention. We wish that we could reproduce all the favorable comments made, but space forces us to be content with publishing the following editorial from the Halifax *Herald*, which illustrates the hospitality and good wishes extended to the manufacturers:—

Halifax will be ready to extend a very hearty welcome to the Canadian Manufacturers Association, meeting in annual session in this city to-day, and continuing for several days.

This is the second time the Association has favored Halifax with its annual meeting here, the former occasion being eleven years ago.

It is unnecessary to remind our readers that this Association, representing the manufacturing industries of all Canada, is a most important body, having in its care the advancement and prosperity of industries which reach in some way or other the entire people from ocean to ocean, providing, directly or indirectly, employment for thousands, and profitable markets for the products of the farmers and others.

Canada so far is much greater as an agricultural country than as a manufacturing country, but how a country's greatness may depend upon its manufactures may be seen in the case of the British Motherland.

The farmers of a country are second to none in importance, but the Captains of Industry, devising and directing industrial work, are among the benefactors of any country possessing them.

There are some papers in this Dominion that do not scruple to insinuate that the manufacturers, or especially the Manufacturers Association, are much like, or entirely like, public robbers, that they are an evil influence, that the corrupt governments, that the farmers and the public generally are their victims, and that, in short, they are blood suckers who grow fat at the expense of other people.

It is, of course, of little use to argue with such partizan wrongheadedness; but if the business managers who provide employment for all kinds of artizans, afford profitable home markets for farmers and others, and build up small villages into great and prosperous towns and cities, are to be classed as public enemies, the people will want to know who are the public benefactors.

It is true the Canadian Manufacturers Association are in favor of Canadian home industry, and in favor of a moderate protective tariff to preserve a reasonable measure of the home market for the home producer; but the people of Canada fully approve of that useful Canadian policy, and have no fault to find with the manufacturers on that score.

It is also to be noted here that the Canadian Manufacturers Association is thoroughly British, and for years past has approved of the Canadian Tariff Preference in favor of goods manufactured in the Motherland.

Halifax, in welcoming the Canadian Captains of Industry, will, no doubt, feel that she is not a great manufacturing city, but would like to be.

This history of Halifax has been against this.

Halifax has been a city of traders, and it is only lately that the people have begun to think industrially.



Factory of T. H. Estabrook, St. John, N.B.

THE PROGRESS OF FREDERICTON.

By George McDade.

In Fredericton a great deal of manufacturing is carried on, and what the city lacks in numbers of concerns she makes up in the size of those that are already located there. The plants of the Canadian Cottons, Ltd., the Hartt Boot and Shoe Company, Ltd., the John Palmer Company, Ltd., and the Palmer-McLellan Company, Ltd., serve to employ large numbers, the latter two concerns engaging very extensively in the manufacture of larrigans as well as tanners. These, with the Chestnut Canoe Company, Ltd., the Risteen Company, Ltd., Smith Foundry Company, Ltd., and many other similar plants, keep the city very active from a manufacturing standpoint.

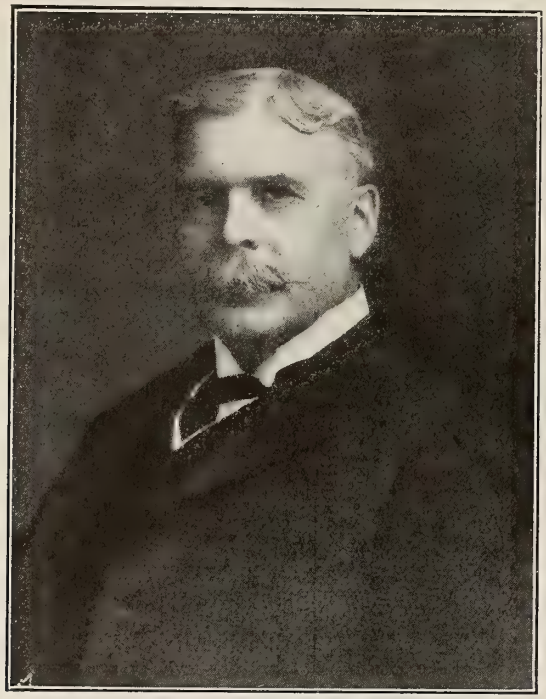
The extensive railway development that is being carried on in the province will have considerable significance from other standpoints on the advancement of Fredericton. Both the Saint John Valley Line, which will run from Grand Falls to Saint John, and the Fredericton and Grand Lake Railway will open up a large agricultural district and will prove important factors in the development of the Province. In addi-



International Engineering Factory in Amherst

tion the Fredericton and Grand Lake Railway will bring the Grand Lake coal to Fredericton manufacturers at a greatly reduced cost.

Aside from the railway construction the present year is proving by far the most active in the history of Fredericton from a constructional standpoint. New, large and adequate



MR. J. H. PLUMMER
Dominion Iron and Steel Co., Ltd., Sydney

factory buildings have been completed for the manufacture of larrigans; the Canadian Cottons, Ltd., have completed improvements to their mill to the extent of $100,000, and about 200 additional hands will be employed. Fraser, Ltd., have completed their new lumber mill, employing 200 hands. Willis McPherson has established a new garage and foundry; a new concrete wharf, costing $50,000, is being erected; dredging to the extent of $75,000 is being carried on; a new post office, costing $150,000, is being erected; an annex to the Provincial Normal School, costing, $50,000, is under construction; build ings valued at $100,000 are being erected at the Dominion Experimental Station here. The Foundation Company, Ltd., have one hundred men employed on the re-erection of the concrete pier for the Fredericton Highway Bridge, which will be completed within the next two months. There are many smaller projects being carried on in Fredericton, and with the general spirit of the optimism that pervades the community for the future of the City and Province it is expected that the next decade will see unparalleled development.

The City of Fredericton is offering free sites to sterling, bona fide industrial plants. Cheap power, excellent transportation facilities and a variety of natural resources combine to make the city an attractive industrial centre.

MR. JAMES HENRY PLUMMER.

James Henry Plummer, who has just been elected to the Executive Council of the Association, was born near Tavistock, Devonshire, England, February 19th, 1848. His father was the late William P. (Commissioner of Indian Lands in Canada).

He received his education at the U. C. College and in 1866 he took his first earning position in the service of the Bank of Montreal. On the organization of the Canadian Bank of Commerce he joined their staff, becoming the manager at Barrie, Ont., in 1870. In 1872 he was manager at Brantford, and the same position at Ottawa in 1874, and became Inspector of the Bank in 1876. Mr. Plummer was a resident of the State of Michigan, U.S.A., 1878-82, and on his return to Canada he entered the service of the Merchants Bank of Canada, taking the office of Assistant General Manager, remaining with that bank until 1906, returning to the Bank of Commerce until 1903, when he became President of the Dominion Iron and Steel Co., Ltd. In 1910 he was elected President of the Dominion Steel Corporation, Ltd., and still holds that office, and together with it the presidency of the Dominion Coal and Steel Companies, Sydney and Louisburg Railway Co., and Cumberland Railway and Coal Co. He is a director of the National Trust Co., of the Sao-Paulo Tramway Light & Power Co., of the Bank of Nova Scotia, and of Canadian Explosives, Limited, and Vice-President of the Canada Life Assurance Co.

Mr. Plummer was commodore of the Royal Canadian Yacht Club, 1900-1901, and is a member of the leading clubs in Toronto, Montreal, Ottawa and Halifax.

He was married in 1871 to Annie McConkey, of Barrie, Ontario, only daughter of the late Thomas D. McConkey, for many years a member of the House of Commons.

During his connection with the Cape Breton industries the steel plant has been developed into a large and well-equipped organization, with six blast furnaces, greatly enlarged steel mills, and mills for finishing the product in blooms, billets, rails, wire rods, bars, wire and nails.

From the end of 1906 to the beginning of 1909 Mr. Plummer was engaged in successfully carrying his company through the litigation with the Dominion Coal Company, and at the end of the litigation the two companies joined hands, on equal terms, as the Dominion Steel Corporation, Limited, under his presidency.

MR. GEORGE HENDERSON.

Manufacturers who attended the Convention in Halifax will remember Mr. George Henderson, of Brandram-Henderson,



MR. GEORGE HENDERSON
Brandram-Henderson Co., Halifax

Limited. As Vice-Chairman of the Nova Scotia Branch and Chairman of the Nova Scotia Publicity Committee, Mr. Hen-

derson was in the position of host, which he filled to the satisfaction of everybody.

He is a Director of Brandram-Henderson, Limited, is the Manager of the Maritime branches, and directs the export business of the Company, which is largely conducted from Halifax.

Mr. Henderson was born in 1879 in Nova Scotia, and finished his education at Dalhousie College. He is a member of the Executive Committee of the Alumni Association of that institution, and was identified a year ago with the Dalhousie campaign in a successful effort to raise $400,000 for the University, being one of the five who planned the campaign. He has taken an interest in C.M.A. matters for a number of years past, and some four years ago was Chairman of the Nova Scotia Branch, and both before and since that time has continued to be a member of the local Executive. In 1911 he made an effort at Toronto to induce the Association in convention there to hold its next annual meeting in Halifax, but Ottawa was next in line. The next year he repeated his invitation at Ottawa, and it was accepted.

During the Convention in Halifax, at a meeting of the Nova Scotia Branch, he was elected Chairman for the ensuing years. His position during the last year was that of Vice-Chairman, the Chairmanship being held by Mr. J. P. Edwards, Londonderry. In spite of the fact that he is still a young man, Mr. Henderson has earned a high position in his native province.

MR. E. G. HENDERSON.

New Vice-President of the C.M.A.

Ernest G. Henderson, of the Canadian Salt Company, Windsor, who has just been elected Vice-President of the Association, is the fourth son of the late Reverend Henry Henderson, Holywood, County Down, Ireland. He was educated at Hillbrook School and at college in Belfast, afterwards becoming an articled pupil to the engineer of the Belfast and County Down Railway, in which shops he served an apprenticeship of four years, when he rose to be Assistant Engineer of the same railway. In 1879 he was appointed Assistant Engineer of the Western Division of the Great Northern Railway of Ireland. Started so well on the road to civil engineering, how did he become a manufacturer?

In 1883 he came to Canada and engaged on the surveys and construction of the main line of the Canadian Pacific Railway, and also helped to remeasure certain sections of that railway north of Lake Superior, where disputes had arisen between the C.P.R. and some of the contractors. In 1888, was appointed Assistant Engineer at Toronto; afterwards he was Resident Engineer for the same company in London, Ontario, resigning that position to erect the salt plant at Windsor, then known as the Windsor Salt Works, now called the Canadian Salt Co., Limited. This plant was the first modern factory for the manufacture of salt erected in the Dominion, and for years the only one in the British Empire which used the vacuum process.

In addition to the manufacture of salt, the Canadian Salt Company have lately erected at Sandwich a large factory for the manufacture of caustic soda and bleaching powder, by the electro-lytical process, the only place in the Dominion where such chemicals are manufactured.

Both the plant at Windsor and the plant at Sandwich were erected under the direction of Mr. Henderson, who is General Manager and Vice-President of the company.

Mr. Henderson has resided in Windsor for about eighteen years; has been President of the Board of Trade, also a member of the School Board, was a delegate to the Sixth Congress of the Chamber of Commerce of the Empire held in Montreal, is a member of the Canadian Society of Civil Engineers, and also a member of the Institute of Civil Engineers of Ireland.

He is an adherent of the Anglican Church, member of the Provincial and General Synods, was a member of the committee appointed to compile a Hymn Book for that church, and is also a member of the committee appointed to revise the Prayer Book. He is a Conservative in politics, a member of the Essex County Club, Sandwich; Detroit Club, London Club, and Albany Club, Toronto, and has been a member of the Executive Council of the Association for several years.

SHIPMENTS IN BOXES.

The following circular has just been issued by the railways:—

To Freight Agents:—

Rules Governing the Acceptance of Shipments in Fibreboard, Pulpboard or Double-faced Corrugated Strawboard Boxes, Pails or Drums.

Rule 14-L, Sub-section 1 of Canadian Freight Classification No. 16, provides that shipments packed in Fibreboard, Pulpboard or Double-faced Corrugated Strawboard packages that do not meet all requirements and specifications as provided in Rule 14, Sub-sections 2 to 23 inclusive, *may be* accepted for shipment at an increased freight rate of 20% with a minimum increase of two cents (2c.) per 100 lbs., *subject to carriers' right to refuse such shipment if in insecure packages.*

Reports we are receiving indicate that an unusually large number of shipments in such packages are reaching destination in a badly damaged condition, clearly indicating that shipments are being accepted in packages that are not of sufficient strength to safely transport their contents. Agents, therefore, will, effective at once, positively refuse to accept shipments of any nature in Fibreboard, Pulpboard or Double-faced Corrugated Strawboard packages that do not comply fully with the requirements and specifications provided in the Classification (Rule 14, Sub-sections 2 to 23 inclusive).

Where such shipments are offered, you will at the time of your refusal to accept them make complete report of such transaction to your Division Freight Agent showing name of shipper, destination, kind of package offered, and contents thereof, sending a copy of report to Chief Inspector, Canadian Freight Association, Union Station, Toronto, Ont.

Agents must see that their employees interested are duly advised of these instructions, and that they are governed thereby.

Business Failures reported to Bradstreets, in Canada and Newfoundland, for the Nine Months of 1913 and 1912, with Assets and Liabilities.

Provinces.	No. of Failures.		Assets.		Liabilities.	
	1913	1912	1913	1912	1913	1912
Ontario	288	289	$943,255	$879,935	$2,105,260	$1,701,336
Quebec	350	350	2,049,692	1,330,940	4,294,816	3,307,198
New Brunswick	31	44	119,410	185,544	186,825	308,445
Nova Scotia	53	32	94,100	530,149	182,475	1,594,999
Prince Edward Island	3	7	4,300	10,40	6,800	30,409
Manitoba	134	55	492,379	192,747	1,008,086	342,318
Alberta	81	48	418,479	201,850	685,796	316,856
Saskatchewan	118	30	477,497	196,932	802,503	291,699
British Columbia	178	107	1,117,483	426,673	2,104,076	809,737
Yukon Territory	..	..	....	....	....	.. ..
Total Canada	1,236	962	$5,716,595	$3,955,170	$11,467,137	$8,702,997
Newfoundlaad	3	6	11,600	28,061	23,000	59,000,00
St. Pierre et Miquelon	..	..	....	....	....	



Plant and Yards of Dominion Coal Company

THE DOMINION COAL COMPANY, LIMITED

This Great Nova Scotia Industry Has An Annual Output of Five Million Tons of Coal and Employs Over Thirteen Thousand Persons

THE Dominion Coal Company is a preponderating factor in the Canadian coal trade, producing, as it does at the present time, over seventy per cent. of the entire output of Nova Scotia, and forty per cent. of the entire output of Canada.

Nineteen years ago, when this Company was incorporated, it became the possessor of eight operating collieries, two of which were closed down leaving four operating collieries mining coal from two seams, having a coal output of 800,000 tons.

In 1913 the Dominion Coal Company have in full operation sixteen collieries, two collieries in process of development, and several collieries projected for the immediate future. These collieries mine coal from seven seams, and will have an output in 1913 of 4,800,000 tons, and in 1914 of probably 5,000,000 tons.

In addition to the collieries in Cape Breton, the Dominion Coal Company controls and operates the Springhill Mines in Cumberland County, where there are two openings producing annually 450,000 tons. In the near future, one or two new collieries will be opened on the Springhill area.

Its Rich Territory.

The area controlled by the Dominion Coal Company covers the most desirable portion of the Sydney coal field, and contains, in addition to the land areas, practically illimitable submarine coal. The workings of the Phelan seam, under the land, are quite extensive, and the same may be said of the workings in the Harbor seam, but it may be safely said that the Company has not yet properly begun to draw upon its coal resources. Only the fringe of the submarine coal has, as yet, been worked upon, and the lower seams are almost intact.

The Glace Bay collieries are linked together by the Sydney and Louisburg Railway, which is forty miles in length between Sydney and Louisburg, having at its extremities the two best shipping ports in the island of Cape Breton. In addition to the main line of railway, there are branches and sidings covering almost 100 miles. From 450,000 to 500,000 tons of coal and freight are handled over the Sydney & Louisburg Railway monthly.

At Sydney Harbor the Company has three shipping piers, one of which is just completed. Three large steamers can be berthed at one time, and up to 40,000 tons of coal can be handled every twenty-four hours, if necessary.

At the Old Fortress.

At Louisburg, the Company has a pier specially equipped for handling slack coal. Louisburg Harbor is practically ice-free, and during the short season when Sydney Harbor is blocked with ice, in severe winters, shipment can be freely made from Louisburg.

The Dominion Coal Company has very completely equipped discharging plants at Hochelaga, Windmill Point, Montreal, Three Rivers and Quebec. There are also discharging plants at Halifax and St. John, N.B.

The steamers used in the coal trade are of the most modern type, carrying up to 12,000 tons of cargo. They are

specially constructed for speedy loading and discharging of coal. A steamer taking 8,000 tons of coal can be loaded in from five to seven hours, and discharged in almost the same time.

The geographical situation of the Dominion Coal Company's mines and the market for the coal have made it almost as much a transportation company as a mining company. The Black Diamond Steamship Line numbers among its vessels two modern passenger steamers, which make the round trip from Montreal to St. John's, Newfoundland, calling at Prince Edward Island and Sydney, en route, throughout the whole season of open navigation.

In connection with the Springhill Mines, the Company controls and operates the Cumberland Railway, which has terminal shipping facilities at Parrsboro. It is possible that in the near future the Company will also provide coal-shipping facilities at Wallace, on the Northumberland Strait side of the mainland. It may thus be seen that the Dominion Coal Company controls its own railway, freight and passenger steamers and discharging plants, which are so placed as to enable the Company to supply coal to the whole of Canada from the Maritime Provinces to the Great Lakes.

A Huge Payroll.

The Dominion Coal Company's employees number over 13,000 persons, and the population directly dependent on their operations will number not less than 50,000 persons. In providing housing accommodation for their work-people, the Company has been obliged to spend very large sums of money on houses, which are rented to the men at very reasonable rates. The more recently erected miners' houses are comfortable and commodious, the rentals charged varying from $4.00 to $8.00 per month.

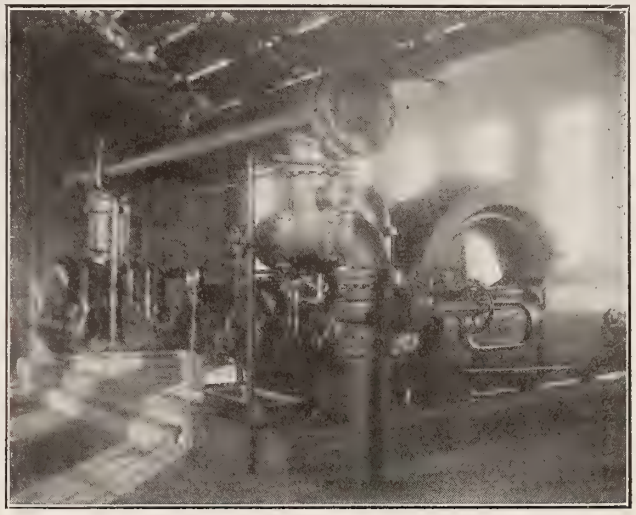
As the collieries of the Company have, in many cases, been located in entirely unsettled locations, it has been necessary not only to provide houses, but stores, electric light, water, sewerage and other corporate conveniences.

The mines of the Company are conducted on the most improved modern principles, and, although the Company do not blazon the fact, safety is a prime consideration. Particular attention has been paid by the management to protection against danger of explosions and fires, and every colliery and department is provided with a properly trained and equipped fire brigade. The Company has three so-called Rescue Stations, where the latest type of artificial breathing apparatus and appliances for life-saving are provided. The power equipment at the collieries is arranged with an eye to economy of fuel, and efficiency of power production. Electricity has, in a large measure, displaced steam as a motive power, and at the newer collieries of the Coal Company the equipment is altogether electrical, no steam being used except for the purpose of heating buildings in the winter. The mechanical equipment includes the newest ideas in steam-raising, such, for example, as a battery of Bettington boilers at the New Waterford Power Plant, exhaust steam turbines, long-distance high-voltage transmission lines, electrically propelled air compressors, ventilating fans, coal hoists, etc.

Washing Coal.

At Sydney the Company has recently erected and put in operation a Baum Washer, with a capacity of 120 tons of slack coal per hour. This is the first coal washer of this type to be erected in America. At all the collieries elaborate arrangements of picking belts and screens are provided, insuring a clean product, and in no respect has the greater advance in practice been made than in this particular.

The welfare of the Company's employees in sickness and accident is insured by the operation of the D. C. C. Employees' Benefit Society. This Society pays weekly benefits covering both sickness and accident, and provides for the maintenance of widows and families of deceased employees, irrespective of whether their death has resulted from accident or natural causes. The expenditure entailed upon the Company by the maintenance of this Society is greater than they would be called upon to incur under the operation of a Workmen's Compensation Act, but the management have the satisfaction of knowing that the provision made by the present arrangement protects their employees against disability from every cause.



Interior View of Dominion Coal Company's Plant

The progress of the Company may be gauged from the fact that during the first five months of 1913 the coal output has shown an increase on the output in 1912 of over 53,000 tons monthly. The same period of 1912 showed an increase of 42,000 tons per month over 1911, so that, in two years, the monthly capacity of the mines has been increased 75,000 tons. An increase of 75,000 tons per month necessitates among other things, an addition to the working force of over 1,000 men.

In the Waterford District there was not a single colliery in 1907. At the present time there are four collieries, producing 110,000 tons per month, and a fifth colliery is in process of development.

Where five years ago was nothing but the original forest, there is now a thriving community of probably 5,000 people, with schools, churches, water supply, and all the beginnings of a full-sized town. It is to be doubted whether even the Canadian West can show a better example of rapid industry and development than the district surrounding New Waterford, all being due to the extensive operations of the Dominion Coal Company.

The foreign trade of the world increased more in 1912 than in any preceding year, and reached the enormous sum of £7,440,000,000. Mr. John Macfarlane, a United States authority, finds that the trade of the world has more than doubled in the last twenty years, and that three countries—United Kingdom, Germany and the United States—have each a larger foreign commerce than that of the whole world in 1850. Half of the commerce of the world consists of the imports and exports of five countries—United Kingdom, Germany, United States, France and Holland. The United Kingdom leads all other nations in the value of both imports and exports, although the United States is a close second in the value of the exports, which are only £2,000,000, or about one-half of one per cent. less in value than those of the United Kingdom. —*Commercial Intelligence.*

THE PROGRESS OF NOVA SCOTIA

From the Address of Thos. Cantley, President of the Nova Scotia Steel & Coal Co., to the Convention

THIS is the second meeting of the association to be held in Nova Scotia, and serves to remind us of the important tariff resolutions passed at the earlier meeting which we believe led to far-reaching results. Since that time Nova Scotia has become self-conscious of her possibilities in a manufacturing way, and is to-day anxious to acquaint the great body of Canadian manufacturers and the public generally with the changed condition of affairs.

There is a general idea abroad that agriculture is the leading industry of this province. The fact, however, is, that if you group together the closely related coal and steel industry, the products of these largely exceed in value the agricultural production of this province, while its manufacturing products as a whole are of very much greater value than the products of the farm.

The coal mined annually in Nova Scotia is over 50 per cent. of the total production of Canada, while the coke made is over 55 per cent. of the total Canadian make. Nova Scotia's pig-iron output is practically 42 per cent., and of steel 48 per cent. of the total Canadian output.

Manufacturing Progress in Thirty Years.

During the past three decades, Nova Scotia has become a manufacturing province, the product of her mills and workshops having increased in that period from twenty-three million dollars to fifty-three million dollars, a growth of nearly 125 per cent. To-day by far the greatest source of her provincial income is from manufacturing, roughly one-third of the net income being derived from this source.

A further idea of the value of our provincial manufacturing products may be gained from the fact that they are equivalent to $100 per head of our population.

While this province has some undoubted advantages as a manufacturing community, it also has its drawbacks. Our principal advantage is in the character of our population, which is intelligent, resourceful, energetic and thrifty. Our climate is good, the facilities for assembling raw materials are satisfactory, and we are close to large supplies of fuel. On the other hand, we are far removed from the larger and more important Canadian markets. Cheap transportation of our products is a vital consideration; and to-day, in this province, the feeling is generally held—and this not without good reason—that the function of the Intercolonial Railway in serving the manufacturing, the agricultural and fishing interests of this province is not viewed by some of our legislators in its proper relation to the trade of the country.

In other words, we hold that the Intercolonial Railway should be so managed as to facilitate the greatest possible interchange of products between the East and the West. The rates of freight charged for this service should be such as would meet the actual expenses of operation and maintenance of the railway, and but little more. In other words, that surpluses should not be expected, and are incompatible with the proper functions of the Canadian government railway.

The Function of the Canal System.

The great canal system of the central portion of the Dominion, the cost of which was great and the annual upkeep and operation of which is large and to which all portions of the Dominion contribute, provides transportation facilities of great and recognized value to the industrial and particularly the agricultural population of the western and central provinces of Canada absolutely free of tolls or charges of any kind. Here we have no hint of the necessity of a paying tariff or indeed of any revenue at all being desirable. Why should a surplus be demanded in the one case while in the other a free service is given, not only to the products of our own country but also to those of the foreigner, who is our most active competitor?

The Tariff Unfair to The Steel Industry.

Another important matter is the question of tariff. Both political parties in the Dominion are avowed supporters of the policy of moderate protection to home industry. That policy in the past has done much to create, foster and upbuild the various industries of the Dominion, but so far as the iron and steel industry is concerned, the present tariff is far from satisfactory. The iron schedule has been mutilated and tinkered with from time to time till it now bears no semblance to the original structure. The large range of exemptions covering the so-called raw material of one manufacturer, which is the finished product of another, has produced a condition of affairs which is now intolerable and as a result we see Canadian capital being utilized to assist and exploit German enterprise in a foreign country, enabling them to dump their bounty-fed material on our shores in immediate competition with the output of our own workmen.

FIRE DOORS.

In a recent issue we have recorded instances of the efficacy of fire doors in preventing the spread of a fire. We are permitted to quote the following letter from the Massey-Harris Co., of Toronto, who are thoroughly in accord with the efforts of the Canadian Manufacturers Association in their campaign on fire prevention.

"We notice the reference in INDUSTRIAL CANADA to the proven value of fire doors. The following experience which we have had with wired glass windows may be of interest.

"We have a two storey and basement office and show room at Edmonton. The adjoining building to the south was a very old one, entirely of wood construction. We anticipated the fire hazard, resulting from such premises, and took the precaution of equipping our windows facing south with standard steel sash and wired glass. Within a month after occupying our offices, a fire broke out in the frame building at 2 a.m., and in a few moments the whole building was in flames. The wired windows gave every satisfaction, completely stopping the progress of the fire. Our total loss to the brick building from water and cracked windows was only $50.00. Without these windows the brick building would, undoubtedly, have been seriously damaged, if not totally destroyed. We are convinced of their suitability where buildings are exposed to heavy hazard from other buildings."

The Fire Marshal of the State of Minnesota in his sixth annual report says:—

"Careful study and observation forces the conclusion that the percentage of fires resulting from carelessness and incendiarism total about 65 per cent. to 70 per cent. of all fires reported."

The Fire Insurance Commission of the State of Texas has also promulgated an equally remarkable statement that out of 13,166 dwelling house fires, 10,980 were due to preventable causes, and in commercial establishments out of 15,118 fires, 9,875 were similarly caused.

RELATIONS BETWEEN THE MANUFACTURING TOWNS OF EAST AND BRANCH BANKS

By H. M. P. ECKARDT

IN discussing, before the Banking and Commerce Committee of the House of Commons, the proposal that small local banks be instituted in Canada, Sir Edmund Walker drew attention to the circumstances of 24 manufacturing towns in Eastern Canada and explained that these towns had 500 manufacturing concerns, of which 126 were very large concerns. He said: "I just take up places like Berlin, with a hundred manufacturing establishments, of which eight are very large; Brantford, with seventy; Amherst, N.S., with five; Peterborough, with thirty-five; Guelph, with seventy; Sarnia, and so on—and suggest that the mere reading of the names of these towns and manufacturing concerns would dispose for ever of the idea that individual local banks could possibly serve these places."

What Figures Show.

Let us take the 24 towns here mentioned and in case of each one discover the amount of capital invested in the manufacturing plants, according to the last census report; also the amount of the annual production of the plants, the salaries and wages paid, and the population of the town:—

	Population.	Capital in Mfrs.	Annual Wages and Salaries.	Annual Mfg. Output.
Amherst	8,973	$15,763,768	$1,147,427	$4,628,765
Dartmouth	5,058	1,681,396	200,775	1,145,059
New Glasgow	6,383	1,063,398	346,466	1,034,572
Sydney	17,723	24,623,033	2,231,327	9,395,017
Berlin	15,196	8,501,844	1,806,972	9,266,188
Brantford	23,132	19,972,623	3,501,381	15,866,229
Chatham	10,770	5,176,983	864,624	5,023,560
Galt	10,299	5,697,404	1,458,266	5,252,600
Guelph	15,175	7,152,635	1,479,818	7,392,336
Paris	4,098	2,286,852	577,812	2,391,756
Peterboro	18,360	6,415,466	1,918,733	10,633,119
Sarnia	9,947	4,694,349	595,116	4,018,901
St. Thomas	14,054	2,572,361	1,218,230	3,573,820
Sault Ste. Marie	10,984	5,381,711	345,581	1,022,834
Walkerville	3,302	8,220,938	1,149,681	8,341,573
Welland	5,318	1,877,576	286,752	1,375,374
Windsor	17,829	3,195,676	874,282	3,771,706
Granby, Que.	4,750	4,437,474	501,483	3,910,548
Hull	18,222	8,780,178	1,414,129	7,259,301
St. Hyacinthe	9,797	2,330,285	686,919	2,810,350
St. Johns, Que.	5,903	1,603,958	364,124	1,185,368
Sherbrooke	16,405	3,701,463	926,832	3,934,510
Thetford Mines	7,261	73,200	53,808	172,885
Three Rivers	13,691	3,775,875	629,601	2,472,040
	272,630	$148,980,446	$24,580,139	$105,855,411

In the next table the same towns appear with statistics in case of each of bank offices, etc.:—

	Bank offices, 1911	Inhabitants per bank	Mfg. Output per b'k office
Amherst	4	2,243	$1,156,441
Dartmouth	2	2,529	572,580
New Glasgow	4	1,596	258,643
Sydney	4	4,431	2,348,754
Berlin	7	2,171	1,323,741
Brantford	10	2,313	1,586,623
Chatham	5	2,154	1,004,712
Galt	6	1,716	875,433
Guelph	6	2,529	1,232,056
Paris	3	1,366	797,252
Peterboro	8	2,295	1,329,140
Sarnia	4	2,487	1,004,725
St. Thomas	7	2,008	510,545
Sault Ste Marie	6	1,831	167,139
Walkerville	2	1,651	4,170,787
Welland	5	1,064	275,075
Windsor	5	3,566	754,341
Granby, Que.	2	2,375	1,955,274
Hull	3	6,074	2,419,767
St. Hyacinthe	4	2,499	702,588
St. Johns, Que.	3	1,968	395,123
Sherbrooke	8	2,051	491,814
Thetford Mines	3	2,420	57,628
Three Rivers	5	2,738	494,408
	116	2,350	$912,547

It is to be noted that these are merely a few of the large towns and cities in the eastern provinces which are extensively engaged in manufacturing. The principal cities are not included; and there are other important places not included—Moncton, Glace Bay, Fort William, Kingston, Owen Sound, Port Arthur, St. Catharines, Stratford, Lachine—for example. As a matter of fact, Sir Edmund Walker selected these particular points because his bank—the Canadian Bank of Commerce—had manufacturing customers located there. It will be interesting to see how many of the chartered banks were represented by the 116 offices operating in the 24 towns and cities here referred to at the end of 1911. On studying the list it is seen that the Commerce had 14 offices and the Eastern Townships (since absorbed by the Commerce) had 7—the consolidated bank may therefore be credited with 21 branches. The Bank of Montreal had 13 offices; the Royal had 9, and the Traders 4 offices, but two of the Traders' offices were closed subsequent to the absorption, as they duplicated Royal offices—and that consolidation can therefore be credited with 11 offices. The Nova Scotia and the Imperial had 8 each; the Merchants and the Dominion, 7 each; the Toronto, 6; the Hamilton, and the Quebec, 4 each; the Molsons, Union, Standard, Ottawa, Hochelaga, and Nationale, 3 each; and 4 other banks had less than 3 offices.

Banks Lend to Manufacturers.

It is well known that the banks lend very large amounts to the manufacturing companies in these places. Only in a few cases is it possible to study the balance sheet so as to get an idea of the bank loan. The consolidated balance sheet of the Dominion Steel Corporation, as at March 31st, 1912, gave the loans and bills payable as $3,784,984, and the bank overdrafts as $115,066. On March 31st, 1913, the consolidated balance sheet of the same corporation showed loans and accounts payable of $6,122,679 (of which $4,026,907 were secured under section 88 of the Bank Act). The Nova Scotia Steel and Coal Co. also borrows heavily from the banks—its advances at times exceed $1,000,000. Four banks—the Montreal, Commerce, Royal and Nova Scotia—participate in carrying these two large accounts. Then several others of the large concerns mentioned in Sir Edmund Walker's list show bank

loans of large amounts in their published balance sheets. Thus one company shows loans exceeding $2,700,000; another exceeding $1,700,000; a third, exceeding $1,400,000; a fourth, exceeding $1,100,000; a fifth, exceeding $1,000,000; a sixth, exceeding $800,000; a seventh, exceeding $750,000; an eighth exceeding $550,000, and so on down to $30,000 or $40,000.

It is practically certain that many of the individual companies which do not publish their balance sheets would have current loans up to or exceeding $1,000,000. And when one remembers that there are 500 manufacturing concerns represented in the 24 towns above mentioned, it will be easily understood that the aggregate of their bank loans and advances would reach a very large sum. Of course it is to be remembered that a number of the largest concerns are financed at Toronto, Montreal, Hamilton, or another central city. Also it would be the case that some large and wealthy concerns would operate on their own working capital, without the aid of bank loans. These concerns might discount trade paper from time to time; and possibly they would in some instances carry large balances in current account or on special deposit. Thus one company down in Nova Scotia reported cash on hand and in banks about $530,000; another, about $400,000; a third, about $290,000; and a fourth, about $200,000. To a certain extent these balances would represent unexpended portions of proceeds of bank loans; more frequently they represent unexpended proceeds of bond or stock issues. They serve, of course, to lighten the burden of the banks that carry the manufacturing loans. But, taken on the whole, the loans to manufacturers far exceed the deposits carried by them. However, in discussing the manufacturing accounts it is necessary to take into consideration the savings accounts of the workmen who are employed. Particularly when wages are paid by cheque the bank carrying a big manufacturing account usually finds that the total of the workmen's balances in the savings department tend to increase steadily. In course of time, if the industries concerned pursue a successful career, it may be found that the deposits of the workmen amount to a respectable proportion of the advances to the companies employing them.

Proportion of Loan to Output.

At Ottawa Sir Edmund Walker testified that in the old days the bank would lend to the manufacturer in certain cases an amount perhaps equal to 75 per cent. of his annual production. If that test were to be applied to the manufacturing concerns in the 24 towns here referred to it would indicate that the bank loans applying to them would exceed $75,000,000. Judging by the individual amounts mentioned above, it would appear that the aggregate of loans and advances at these manufacturing points would be considerably in excess of $75,000,000.

It will be seen that in the case of the heavy industries there is required a capital investment, large in proportion to the annual production. Those industries also require very large bank advances. The footings of the second table indicate that in the particular towns under discussion there is a bank office, on the average basis, to every $900,000 of manufacturing output. As the bank offices in these towns would derive a considerable amount of business from farmers, merchants and others not engaged in manufacturing, it does not necessarily follow that the business resulting from an annual output of $900,000 would suffice to sustain a banking office. However, there is another point to be considered here. Of the companies contributing to this annual output of $105,855,411, a number of the very largest transact their banking business at Toronto, Montreal or Hamilton. The 116 banking offices here mentioned derive but little profit from their operations.

The second column in the second table is well worth studying. It shows that in some cases a large industrial population does not give a great deal of business for the banks. Hull and Sydney are cases in point. Of the towns, Welland and Paris have the greatest number of banks in proportion to population. That is probably due in the case of Welland to a very rapid growth, and in case of both towns to their situation in a fine agricultural district.

It seems clear enough that if Canada had nothing but local banks such as they have in the United States, the manufacturers in these Eastern towns would have greater difficulty in getting the financial support necessary to enable them to carry on their business. Mr. J. B. Forgan, the president of the First National Bank of Chicago, explained to the Banking Committee that the manufacturers in the United States often endeavored to solve this problem through organizing banks of their own. That is, a manufacturer located in a small town would organize a bank, elect himself president, and then set to work to accumulate a line of deposits for the purpose of lending a considerable amount to his own industrial concern. The laws usually stipulate that an individual bank of this kind shall not lend more than 10 per cent. of its capital and surplus to any one borrower; but that stipulation has been frequently evaded through causing the bank to buy bonds, to make loans to dummies, or in some other manner. Even when the manufacturer goes to the length of organizing his own bank he cannot get very much accommodation from it unless he evades the law. Then there is a considerable amount of liability to be assumed in organizing a bank. In case of a national bank, and of a state bank, too, in most of the states, the subscribers to the stock are subject to the double liability. The manufacturer who undertakes to start a bank is thus obliged to involve himself and his friends and associates in this double liability. And after all, if he is in business in a big way, he will have to go to New York, Chicago, or Boston for most of his loans.

On the whole the lot of the borrowing manufacturer is more comfortable in Canada. He does not have to bother about organizing a bank of his own, and his bank account will be carried in his home town. If he deals with a strong bank he can depend on getting enough credit to carry on his business, no matter whether the money markets are strained or not.

THE PACKING OF FRUIT.

Canadian fruits, than which there are none better, are now regarded in the markets of the world at their true worth. Through the operations of the Inspection and Sale Act the packing of Canadian fruit has been greatly improved and the development of the trade accelerated. From time to time since its enactment, as experience has indicated, the Act has been improved in order to more completely encourage and protect the industry. The latest amendment to the Act, which was passed during the past session of Parliament, extends inspection to imported fruit, thereby placing it on an equal footing with that grown in Canada. The amendment provides that the Governor-in-Council by regulation may prescribe the kinds of imported fruit, the packages containing which must be branded or marked, the brands or marks to be used thereon, as well as the methods and places where such branding shall be done. Other minor changes were effected in the Act.

For the information of those interested in the fruit trade there has been issued by the Dairy and Cold Storage Commissioner a pamphlet designated Bulletin No. 40 of the Dairy and Cold Storage Branch, containing the Inspection and Sale Act, Part 9 (the Fruit Marks Act and Fruit Packages), as amended. Copies of this bulletin are available to those who apply for them to the Publications Branch of the Department of Agriculture at Ottawa.

ADDRESS OF THE RETIRING PRESIDENT

MR. ROBERT S. GOURLAY

Delivered Before the Canadian Manufacturers Association Convention at Halifax, September 17th, 1913

Gentlemen of the Canadian Manufacturers Association,—

By way of introduction to the remarks which, as your President, I am privileged to offer on this occasion, let me first give expression to the pleasure it affords me personally, and to the gratification I am sure you must all feel, to see how splendidly the call to this meeting has been answered by the manufacturers of the Dominion. One of the duties of my office is to bid you welcome to the conferences that are to follow, and this I do most heartily; but to content myself with that would be to shirk the more important duty of congratulating you upon the unselfishness and the good citizenship inherent in you all that has prompted your attendance here to-day. You have travelled, many of you, long distances and at sacrifices of time and money that are beyond computation, not for personal gain nor the advancement of private interests, but in order that by your presence you might encourage those who during the past year have been striving faithfully to promote the general welfare of Canadian industry, and by your counsel to assist in shaping wisely the policies of your organization for another year.

I doubt if there is another body in Canada that boasts as loyal and as appreciative a membership as that to which we are so proud to belong. I think I am correct in saying, too, that that same loyalty, and that same appreciation, so generously expressed, are powerful factors in stimulating your officers and your committees, year after year, to greater and ever greater efforts in your behalf. It augurs well for the success of our Convention that you have come here in such numbers, from so many and from such widely scattered places, representing so many different trades, with all the richness of experience and the breadth of view thereby implied. In name the Annual Meeting of the Canadian Manufacturers Association, this gathering is in reality a Parliament of Industry. The problems reserved for your consideration are of real present importance in our industrial life; your deliberations thereon will be followed in the press with keen interest, and while your decisions may lack the force of legislative enactments their influence for good or for evil may be greater and more far-reaching than you know. Let me express the hope, therefore, that you will approach the business that awaits you with broad minds and open hearts, remembering always that your first duty is to Canada, and that if you would uphold the highest traditions of your organization not only must your discussions be tempered with moderation but you must be prepared at all times to subordinate individual advantage to the common good.

The Past Year.

The year that has passed since our last Convention has been in many respects a memorable one, filled with happenings of great moment both at home and abroad. It has brought our neighbors to the South into strained relations first with Japan, then with Mexico. It has left its imprint upon the map of Europe as the result of a devastating conflict in the Balkans. It has witnessed embroilments of international politics that threatened at times to precipitate a general conflict, but from which we have been happily saved by diplomacy and dispassionate reasoning. It has thrown open the inner doors of science and given us new vistas of knowledge, for which we have dearly paid in the tragedy of the South Pole. Here in Canada it has divided our two great political parties on an issue that should have united rather than separated them, while the check it has placed on over-speculation and the lessons of business caution it has taught us have been both timely and salutary.

The Money Stringency.

This latter point is one I should perhaps elaborate upon, considering how closely it affects us all as business men. We have heard a great deal of late months about the tightness of money, and various theories have been advanced to account therefor. The war in the Balkans, and the wide-spread trouble which for a time it seemed to portend, undoubtedly induced a hoarding of gold and diminished the supply of money available for ordinary business. That influence, fortunately, has now ceased to be operative. The German war tax, prompting as it did a concealment of assets, no doubt led to further hoarding of gold. These and such like causes, however, do not to my mind satisfactorily explain the situation so far as Canada is concerned. The key to the situation here, as it appears to me, lies in the fact that Canada is financing her rapid numerical and material growth and development on borrowed capital. The wealth of our resources is unquestioned, but that wealth has not yet been converted into money or into merchantable commodities that can be used to pay our debts. Meanwhile our immediate requirements in goods from other nations are far in excess of anything we have to offer in return. For the twelve months ending May our imports for consumption were $685,000,000, our exports of domestic produce only $358,000,000. On the business of one year alone, therefore, the balance of trade against us was $327,000,000; if we go back for ten years the total adverse balance amounts to $1,051,000,000. This we have had to pay in cash, and not having the money ourselves we have had to borrow it.

In the effort to secure capital we have thrown industrial bonds by the millions, municipal debentures by the tens of millions, and railway securities by the hundreds of millions on to the markets of London, Paris and Berlin. The readiness with which these securities were for a time taken up enabled us to proceed with our development unchecked, notwithstanding the enormous strain of interest charges to which we subjected ourselves. And thus we have gone on from year to year, not satisfied to have made our money before we spent it, but spending it before we earned it, hoping thereby to earn more. In the natural course of events it could only be a matter of time till our credit abroad would approach its limit, and this past year the inevitable happened. Supplies were in part shut off, carrying charges had still to be met, and the result was tight money.

The Attitude of Our Banks.

Since the commencement of this stringency a good deal of criticism has been levelled against our banks for their alleged failure to provide the funds necessary for the business of the country. From a wide acquaintance of men engaged in commercial pursuits and in large industrial undertakings I am convinced that not only are these criticisms in the main uncalled for, but that on the contrary our banks are deserving of much credit for the successful manner in which they have handled a difficult situation. To say that they have refused to provide money for speculative ventures,

or for the financing of new enterprises, is to acknowledge that they have chosen rather to reserve their resources so as to be the better able to take care of legitimate business. And this I believe they have done, and done well, for with one or two exceptions, where special considerations may have necessitated a curtailment of credit, I have yet to hear of a good business, manufacturing or otherwise, that has not been provided with what money it actually needed. All of us are perhaps more or less prone to depend upon the banks for money that should go into our businesses as paid-up capital, and those who may have felt disposed to complain because of their inability to increase their line of credit should remember that the alternative course is often the more logical one.

The money that is loaned by our banks on call outside of Canada is another favorite ground of attack by people who speak with a very imperfect knowledge of the situation. The claim is made that this money, received from Canadian depositors, is being diverted to New York for speculative purposes when the business interests of the country require it to be employed at home. Yet these same critics would probably be the first to find fault were the banks to reduce their reserves beyond what would appear to be the limit of safety. A bank must always hold itself in readiness to meet an emergency should it arise. Loans made on ordinary commercial and industrial businesses may be as safe as Gibraltar, but they will not stop a run nor move a wheat crop. A bank's call loans are as much a part of its reserve as the gold that lies idle in its vaults, in addition to which they afford an easy means of liquidating, temporarily at least, a substantial portion of our foreign trade indebtedness. In this connection it is worthy of note that the amount of money loaned by our banks on call outside of Canada was $28,000,000 less in July of this year than in the corresponding month a year ago.

From now till the first of January our banks will require to provide in the aggregate a sum sufficient to purchase a grain crop in the West valued at $200,000,000. For the general welfare of the country it is imperative that the farmers be paid in cash in order that liabilities may be liquidated as between them and the retailers, the retailers and the jobbers, the jobbers and the manufacturers. In my humble opinion it speaks volumes for the banking system of Canada that so large a sum will be provided for so useful, so necessary a purpose, with so little disruption to other business.

Far from criticizing our banks, I feel that our attitude should rather be to accord them a larger measure of financial support than we have been accustomed to give them in the past. The return on bank stocks at present quotations does not mark them out as quite as attractive when compared with other channels of investment; nor have they grown in popular favor since the shareholders in certain institutions, now defunct, were called upon under the double liability clause of the Bank Act. Yet in a growing country like Canada banks as well as factories need more capital, and I am hopeful that the new Act, with its wise provision for an independent audit, will have the effect of inspiring fresh confidence in our banks, and so pave the way for their expansion and continued prosperity.

The Business Situation.

Generally speaking, business throughout the year has been good. There has been a noticeable falling-off in building permits, especially in the West, a fact which accounts for the dullness which some few trades have experienced. Over-speculation in real estate, too, has been followed by a depression that has restricted spending power in many quarters. The steady continuance of railway construction work and municipal improvements, however, has more than made up for any losses due to the causes mentioned. Last year there was a fair average crop, which provided the farmers with money sufficient to absorb a normal output of manufactured goods; this year the assurances of a more bountiful harvest encourage the hope that business will improve. Other indications, too, are propitious. The war clouds have been dissipated, money is becoming somewhat easier, and once more it is beginning to find its way to Canada.

I am not and never was one of those inclined to view the situation with alarm, or even anxiety. Under Providence nothing can stop the progress of the wonderful country we boast as our heritage. Extraordinary causes may for a time check its growth, but such checks will be temporary only, for, with its illimitable resources of forest, field, sea and mine, it must eventually come into its own. But we all needed the lesson of caution that the past year has administered so effectively, yet with so light a touch. We have grown so accustomed to increases of from 10 to 50 per cent. in our businesses that when we simply mark time for a year we grow impatient and delude ourselves into thinking that we have lost ground. A maxim in the old school-books used to teach us that slow but sure will often win the day against speed and spasmodic action. I do not, of course, accuse the business men of Canada of spasmodic action, but many of them, I fear, fail to appreciate fully the virtues of the slow but sure method.

The Tariff.

Our tariff has undergone very little change since we met a year ago. A few inequalities were corrected by legislation in the regular way, but their application was limited to specific lines, with no resulting disturbance to business in general. This has been in keeping with the policy of tariff stability for which our Association has so consistently stood, and to that extent the policy of the Government, as thus far manifested, has our sympathy and support.

In this connection it is interesting to note that the general revisions of our Canadian tariff have synchronized fairly closely with the general revisions of the United States tariff. Our revision of 1894 corresponded with their Wilson tariff; the Fielding tariff of 1897 corresponded with the Dingley tariff of the same year; the Payne-Aldrich tariff of 1909 followed only two years after our revision of 1907. Their revisions during the period mentioned were all carried out without a change of Government, a fact which would naturally lead one to suppose that the changes were few and unimportant; ours were carried out under two different Governments, so leading one to expect that the changes would be numerous and far-reaching. As a matter of fact what actually occurred was just the reverse. The United States tariff was juggled; one set of items would be carried under a high duty one year and low the next, while another set would be raised from a revenue basis to a prohibitive basis. For the resultant unsettling of business which inevitably followed we find no counterpart in Canada, where the tariff has been maintained by Liberal and Conservative Governments alike on a fairly even basis, as a consequence of which our national growth has been steady and our development uniform.

In expressing the hope that this may long continue to be our policy, I do not wish to be understood as of the opinion that the Canadian tariff is not in need of change. Stability is a characteristic, essential to any good tariff policy, but stability should be predicated upon adequacy of protection, scientifically graded through every schedule. The remarkable progress we have made of recent years, and the general prosperity which our country has enjoyed, clearly evidence the fact that our tariff in the main has been a beneficial one. But it is by no means perfect. The woollen schedule is not what it should be, otherwise an industry that should be indigenous

to an agricultural country like Canada would not have languished as it has. Neither is the iron and steel schedule satisfactory. As at present constituted it is to some extent encouraging the establishment and expansion of what might be called "secondary industries," but it is far from adequate in the protection it affords to certain of the more basic branches of the iron and steel trade, where the investment in plant must necessarily be heavy and where volume of output counts for so much. I cite only these two cases to support my contention that the tariff needs revision.

We do not ask, nor do we want, higher duties all along the line. I am aware that such desires are attributed to us, and will probably continue to be, despite anything we may profess to the contrary. If it will serve any useful purpose let me here and now place our Association on record once more as being satisfied with the present general level of our tariff, subject to the adjustment of certain defects such as those I have mentioned. But it should also be made clear and emphatic that we are unalterably opposed to any general lowering of the tariff on goods of a class or kind made or produced in Canada. We still stand firmly by the principle we enunciated in this city eleven years ago, namely, that our tariff should be so framed and consistently maintained as to transfer to the workshops of our Dominion the manufacture of many of the goods we now import from other countries. As a nation we have already made much progress in that direction. And we are still continuing to progress. Every week, every day almost, brings us word of new acquisitions to the ranks of Canadian industry, which but for our tariff would never have been ours. As long as that is the case, so long should we hesitate to disturb a situation that is so obviously to our advantage.

The Underwood Tariff.

While on this subject it is fitting that I should refer briefly to the tariff legislation soon to be adopted by the United States. An examination of the Underwood Bill as finally amended confirms me in the belief that Canada made no mistake in rejecting the reciprocity agreement of 1911. In saying this I do not question the value of the market concessions we would have secured thereunder, but whereas then we would have secured these concessions only in return for similar concessions on our part, now we are to secure many, and some of the most substantial of them without an embarrassing consideration of any kind. Cattle, swine, pulp, paper worth up to 2½ cents a pound, dressed lumber, staves and coke will all enter the United States duty free; subject to favorable interpretation, fish, coal and wheat will also be free; even under the most unfavorable interpretation of which the foodstuff schedule is capable, wheat will be subject to a duty of 10 cents only as against 25 cents at present, while on fruits there will be material reductions. The judgment of those who opposed reciprocity on the ground that sooner or later we would have the wider market as a result of United States tariff conditions is thus vindicated; on the other hand I am sure that the prospect of an early enjoyment of these privileges will assuage the disappointment of those who gave reciprocity their support.

Taken as a whole, the Underwood Bill means a material reduction in the average rate of duty charged by the United States on goods entering that country. In some quarters this is being urged as a reason why Canada should now reduce her tariff in sympathy. The argument might be tenable if conditions in the two countries were similar, but they are not. If on some lines which we both produce the United States has cut her duty below the rate charged by Canada, it is no more than she should do, considering the larger market her manufacturers enjoy, and all the advantages of output and specialization incident thereto. There are many lines of common manufacture on which her duties are still higher than our general tariff, and even more disproportionate in relation to our preferential tariff. The most that can be said of her new average rate of duty is that it will now approximate Canada's, whereas if things were to be adjusted according to the ability of each country to compete with the other, it should be very much less. Rather than hasten to follow the example of the United States, it would seem to be the part of wisdom for Canada to wait and profit by the experience of her neighbor. A tariff that has stood us in good stead for so many years should not be lightly abandoned for one whose advantage to the country, to say the least, is problematical, especially when we will be able to judge of it much more intelligently after the lapse of a few years.

The Labor Situation.

With regard to the labor situation I need say very little. Earlier in the year there was a pronounced scarcity of skilled help in certain lines of trade, but continued immigration on the one hand, coupled with retrenchments due to the money stringency on the other, have enabled the supply to overtake the demand. Should the tide of artisan immigration continue —and it is not to be expected that it will terminate suddenly —the probabilities are that this winter there may be a surplus of labor, but I am optimistic enough to believe that by spring we will be back to normal conditions again, in which case very little, if any, hardship will have been entailed.

For the fiscal year ending March 31st our total immigration was 402,432, or the equivalent of eight cities the size of Halifax. Of these, 72,243 were mechanics, as against an immigration of only 34,928 mechanics the year previous. From the standpoint of the employer, therefore, the situation shows marked improvement, though it is still a fair comment that highly skilled labor is always in demand.

During the past year there has been a noticeable falling off in strikes, not so much, perhaps, in the actual number of strikes as in the loss of working days they entailed. The records of the Department of Labour show for 1912 a loss in working days of over 2,000,000; this year it was only a little over half that amount. This should be qualified, however, with the further remark that 1912 was an abnormally bad year, and while improving on its showing our strike loss is still considerably higher than the average for the past ten years. Trouble among the railway construction workers in British Columbia was the largest single factor contributing to the result mentioned.

Imperial Defence.

Passing along to a consideration of others matters, I would like next to say a few words on the subject of Imperial defence and Canada's policy in regard thereto. An issue of this kind that has engendered such political animosities might perhaps be thought a safe one for us to leave alone, in view of the necessity of keeping our organization free from political entanglements, but its direct appeal to us as business men seems to call for some pronouncement.

My predecessor in office, Honorable Senator Curry, in his presidential address a year ago, voiced an attitude with which I think we can all agree, namely, that the need of protecting our water-borne commerce demands that we should do something, and do it quickly, while our self-respect as a Dominion of well-to-do people impels us to lift from other shoulders those burdens which we should be carrying ourselves.

In this there is nothing incompatible with the resolution adopted by the House of Commons in 1909, which resolution it will be remembered was carried with the concurrence of

the Opposition after one day's debate in Committee of the House:—

> "This House," the motion read, "fully recognizes the duty of the people of Canada, as they increase in numbers and wealth, to assume in larger measure the responsibility in national defence.
>
> "This House is of opinion that under the present constitutional relations between the Mother Country and the self-governing dominions, the payment of regular and periodical contributions to the Imperial treasury for naval and military purposes would not, so far as Canada is concerned, be the most satisfactory solution of the question of defence.
>
> "The House will approve of any necessary expenditure designed to promote the speedy organization of a Canadian naval service in co-operation with and in close relation to the Imperial navy, along the lines suggested by the Admiralty at the last Imperial Conference, and is in full sympathy with the view that the naval supremacy of Britain is essential to the security of commerce, the safety of the Empire and the peace of the world.
>
> "The House expresses its firm conviction that whenever the need arises the Canadian people will be found ready and willing to make any sacrifice that is required to give the Imperial authorities the most loyal and hearty co-operation in every movement for the maintenance of the integrity and honor of the Empire."

Having thus placed ourselves on record over four years ago we are to-day in the humiliating position of a nation that has pledged itself to a course of action, and done nothing, or next to nothing.

If the need for action was recognized as imperative in 1909, it is surely far more so to-day. Then, our foreign trade, both import and export, amounted to $571,000,000; the interval, brief as it has been, has raised it to the stupendous total of $1,082,000,000, an amount almost double. The registered tonnage of the merchant marine we were anxious to protect in 1909 was 702,000; to-day it is 836,000, and still we are doing nothing. In 1909 we drew upon the United Kingdom for an immigration of 52,000 people; this year we have increased our population by over 150,000 at their expense, and these people have brought with them to Canada cash and effects valued at nearly $6,000,000. Unfortunately, authentic figures are not available to show the increase of our obligations to Great Britain for money supplied to finance our various undertakings, but I think I am well within the mark in estimating that since 1909 we have drawn upon her to the extent of $200,000,000.

From whatever standpoint we view the matter the incentive to action grows more and more insistent, yet with so impelling a duty before us we have been chagrined and humiliated by the spectacle of a noble ambition converted into a football of party politics. If I interpret your feelings, gentlemen, correctly, you are less concerned as to *how* the matter is settled than you are that it *be* settled, and settled promptly, in a manner and on a scale befitting the dignity of our country.

The feasibility of building in Canada all or any of the vessels that shall constitute our contribution to the defence of the Empire is a matter which should be left for experts to decide. That we *could* build them goes without saying, were the question of cost to be left out of consideration. Certain it is, too, that we will never have in Canada naval shipyards worthy of the name unless we some time make a beginning, and I am sure I am right in crediting you all with a desire to see our country possessed of such equipment at the earliest practicable date. In those industries with which I am familiar, however, the safe and logical development is usually from smaller to greater things, and for this reason I am constrained to believe that Canada would be wise to content herself with the building of smaller vessels and other work incident thereto as a commencement, leaving to the naval yards of England for the time being the task of providing the ships that shall proclaim us a nation.

Shipbuilding.

Nor does it require much stretching of the imagination to picture Canada to ourselves as a country celebrated for its shipbuilding. One of the youngest of nations, we have already won our fair share of honors. Thanks to the enterprise of John Molson, of Montreal, Canada takes credit for the second passenger steamer ever built in the world, and the first one built on the American Continent. That was away back in 1809, only two years after Fulton launched his first steamer, but whereas Fulton had the inventor Watt for an engine builder, Molson designed and built his engine in Canada.

The intervening years have witnessed may vicissitudes in Canadian shipping, but the one now drawing to a close has brought us fresh triumphs. In the "Nuronic," launched at Collingwood, Canada possesses the largest vessel of her type on the Great Lakes; there is now on the ways at Port Arthur what will, when launched, be the largest grain-carrying vessel in the world, whilst in the matter of harbor development there is now en route to Hudson's Bay a dredge of unusual capacity, built and recently launched at Toronto.

The development of our inland commerce is giving an impetus to shipbuilding on the Great Lakes, despite the lack of encouragement it has received in official quarters. The new Welland Canal, the Georgian Bay Canal, too, if it is built, together with extensive harbor improvements from Montreal to Fort William, should speed it on the road to further progress. But the yards that are now sharing in this business are so situated that they will hardly be available for the construction of naval vessels.

What we would all like to see, what we believe will eventually come, is the revival of shipbuilding on a large scale at our ocean ports. A young and vigorous country like Canada should not have to look to the past for the golden days of any of her industries, and if we occasionally recall Nova Scotia's activities of forty years ago, when her annual tonnage of vessels built and registered in the Province was 84,000, as against the present annual average of only a little over 6,000, it is not in any spirit of idle boasting over former achievements, as from a desire to remind ourselves that what we once did we can do again. True, the days of wooden shipbuilding may be over, but possessing as she does an abundance of both iron and coal alongside of tide water, and with large industries for the manufacture of steel, the natural advantages of Nova Scotia as a home for modern shipyards are most marked.

Personally, I believe that the day is not far distant when this and our other Maritime Provinces will come into their own, and experience a development too long delayed. The lure of the West, as a faraway country with green pastures, has sapped their population of thousands who would have had equal, if not better, opportunities at home, had their vision been clear enough to see it. The completion of the Grand Trunk Pacific will soon place these Provinces on the shortest direct line of communication with the most rapidly growing market in our Dominion. The construction of the Hudson Bay Railway should give easy access to those same markets for their coal, their steel, and other heavy commodities that otherwise could not bear the cost of transportation. More important perhaps than either of these, the opening of the Panama Canal will bring much of the trade of our Pacific

ports to their very doors, and enable their industries to distribute far inland from Vancouver and Prince Rupert. The fulfilment of these hopes, which I am sure we all cherish, is something far more than a dream—it is a practical probability of the very near future, and once the movement starts it will be for Ontario and Quebec, with their boasted industrial supremacy, to look to their laurels.

The Association.

Of the work upon which our Association has been engaged during the past year I need say very little. It has endeavored to render you individual service, and in this I trust it has not been unsuccessful, but it has not overlooked its duties and its responsibilities in those broader matters regarding which the business community naturally looks to it for protection. Without desiring to be boastful or egotistical, I think we may all pride ourselves in the belief that our broad policies in relation to transportation, fire prevention, workmen's compensation and other matters have heightened the esteem in which we are held throughout the Dominion. Seldom does an important issue arise touching the commercial or industrial welfare of our country but the Canadian Manufacturers Association is found in the forefront of the firing line, and it is the general recognition of this fact, and a well merited appreciation of our efforts, that is winning us the support so essential to our success.

We have now reached a point where in my opinion some changes in our form of government are not only desirable but necessary. The machinery adapted to the conduct of an organization of a few hundred members has grown cumbersome and unwieldy as our numbers have increased and our activities broadened. The recommendations of your Advisory Committee in this connection will be laid before you in the form of a motion to amend the by-laws, and I trust you will see your way clear to act on their advice.

In closing these remarks I would be remiss in a most important duty were I not to express my personal appreciation of the ability and fidelity of the permanent staff. To a degree that is unique among the business organizations of this country, the Canadian Manufacturers Association is officered by men and women of high ideals, ever industrious, efficient and zealous for the advancement of our organization and the interests of its members in every department of the industrial life of our beloved Dominion. On your behalf I thus publicly and with fullest measure of appreciation record our sense of their splendid service, and give them, the General Secretary, the heads of departments, the Branch Secretaries, and every other officer down to the youngest on the staff, the chief credit for the success of the year.

To my successor in office, the incoming committees, and the Association at large, I can offer no better wish than that these services may be continued, being confident that the coming year will mark one of the brightest and best in the history of the Association.

A committee will investigate bankruptcy laws and report to the Executive Council by authority of a motion passed at the Halifax Convention.

In speaking on this subject, Doctor Morley Wickett, of Toronto, said:

"With regard to that very important matter of bankruptcy, it would seem to the committee that had the matter in charge that the Executive has passed upon the desirability of proceeding with the matter and we should not let the Convention close without giving it an impetus, and I would suggest that its importance calls for a resolution instructing the Legislative Committee to take up the matter actively with the Government."

VOTES FOR COMPANIES.

Members in Montreal, Quebec, Westmount and other cities in the Quebec Province where joint companies have the right to vote in municipal elections, are asked to bear in mind the fact that such companies are required to name their voting representative before the 1st of December of each year in order to exercise the franchise in the next civic election following. The clause in the Montreal City Charter giving the right of vote to companies reads as follows:—

"Joint stock companies or corporations may be entered on the voters' list and vote in the name of and through a representative of the company, duly authorized to that effect by a resolution, a copy whereof shall be filed with the city clerk on or before the first day of December of each year, and they may so vote in all the wards where they pay taxes; provided such representative be a director or employee of the company when authorized and called upon to cast his vote."

Incorporated companies are strongly urged to take full advantage of the right of franchise and nominate their representatives as early as possible.

BULK SALES LEGISLATION.

The question of bulk sales legislation was discussed at the Halifax Convention at the conclusion of the report of the Parliamentary Committee:

"In regard to the bulk sales legislation," said Mr. Edmonds, of Toronto, "you will remember that the matter was before the Ontario Legislature on two occasions. Last session there was quite a fight by the Retail Merchants' Association, and they succeeded in having the legislation held over until another session. The chief cause of their opposition was the clause which demanded that the man purchasing should get a statement from the man from whom he was buying as to his liabilities. He further complained that the advocates of bulk sales legislation had never consulted the retail merchants in the matter."

Mr. Wegenast, Legal Secretary of the Association, replied. "With regard to the first point, the clause requiring a statement of the liabilities is the vital clause of the whole legislation, and in objecting to that the retail merchants objected to bulk sales legislation of any kind. Before the committee of the Legislature, however, they were driven to the position that they did not object to it on general principles, but that they had not been consulted. The reasons why they were not consulted could not be gone into publicly here. They have to do with the question whether the persons who purported to represent the retail men really did. Negotiations have been entered into now, and everything possible will be done to secure a conference of those who are authorized to represent the retail merchants."



Halifax, From George Island

AUDITOR'S REPORT

CANADIAN MANUFACTURERS ASSOCIATION.

Incorporated.

BALANCE SHEET, 31ST JULY, 1913.

LIABILITIES.

Fees paid in advance and unearned	$16,769 16	
Accounts payable	3,314 83	
Toronto branch—special suspense	48 68	
		$20,132 67
Reserve for depreciation, furniture and fittings	$1,450 00	
Balance Surplus Assets	36,969 69	
		38,419 69
		$58,552 36

ASSETS.

Cash on Hand and in Bank	$10,426 67	
Investments as per Schedule "C"	31,013 56	
Interest Accrued on above	479 26	
		41,919 49
Accounts Receivable—Advertising	$8,679 19	
Accounts Receivable—Legal Dept.	499 25	
Accounts Receivable — Commercial Reports	4 00	
Fees Accrued and Due	324 97	
	$9,507 41	
Less Reserve for Bad Debts	1,000 00	
		8,507 41
Advance *re* Test Case Extra Provincial Corporations	$ 500 00	
Trade Index, 1913	1,511 24	
Expense Inventory	543 40	
Furniture and fittings	5,570 82	
		8,125 46
		$58,552 36

Audited and found correct,

(Signed) WILTON C. EDDIS & SONS,
Chartered Accountants.

Revenue Account.

For 12 months—ending 31st July, 1913.

1912.		
July 31st.		
By balance		$28,595 45
1913.		
July 31st.		
To Expenses as per Schedule "A"	$49,169 63	
" Bad Debts	122 68	
" Depreciation of Furniture	225 00	
" Extra Provincial Corporations Test Case	3,581 21	
" Workmen's Compensation Act	1,550 21	
By Membership Fees		53,913 06
" Interest		1,751 58
" "Industrial Canada" as per Schedule "B"		7,273 23
" Provision for Expense—Manitoba Branch—31st July, 1912, not used		85 10
To Balance	$36,969 69	
	$91,618 42	$91,618 42

Schedule "A."

Expense Account.

For 12 months—ending 31st July, 1913.

Annual Meeting, 1912		$1,905 09
Branches:—		
British Columbia	$492 54	
Hamilton	491 16	
Manitoba	70 90	
Montreal	4,456 55	
Nova Scotia	254 23	
Quebec	183 86	
Toronto	1,431 92	
Niagara	10 00	
		7,391 16
Certificates		425 88
Counsel Fees		1,145 80
Departments:—		
Insurance		2,000 00
Legal		4,476 43
Tariff		5,494 40
Transportation		8,837 47
Exchange		85 87
Postage		727 64
Printing and Stationery		787 66
Receptions		164 95
Rent and Light		1,096 60
Salaries		9,189 48
Sections		93 40
Taxes and Insurance		76 62
Telegrams and Telephones		165 05
Translations		255 24
Travelling		1,109 12
Sundries		384 21
Winnipeg Office		2,910 36
Montreal Office		447 20
		$49,169 63

Schedule "B."

Industrial Canada.

Statement showing Receipts and Disbursements for 12 months ending 31st July, 1913.

EXPENDITURE.

Electros	$541 97
Special Literary Matter	549 00
Postage and Distribution	1,346 79
Printing and Stationery	11,690 07
Rent and Light	1,086 04
Salaries	5,691 19
Telegraph and Telephone	68 92
Travelling	286 48
"Industrial Canada" Prizes	440 00
Sundries	85 00
Profit for 12 months	7,273 23
	$29,058 69

RECEIPTS.

Advertising—Display	$26,545 71
Advertising—Buyers' Guide	2,407 49
Copies—Sale of	105 49
	$29,058 69

Schedule "C."

Investments.

	Par Value.	Cost.	Rate of Interest.	Due Date.
City of Toronto Bonds	$4,866 67	$4,193 12	3½%	1 July, 1944
City of Hamilton Bonds	4,000 00	3,932 00	4%	1 Sept., 1920
City of London Bonds	2,000 00	2,017 80	4½%	30 June, 1915
City of Stratford Bonds	10,000 00	10,400 00	4½%	1 Jan., 1941
Riordon Pulp and Paper	5,000 00	4,950 00	6%	30 June, 1942
City of Toronto Bonds	6,326 66	5,520 64	4%	1 July, 1948
		$31,013 56		

TREASURER'S REPORT

I am sorry that circumstances have arisen which will make it impossible for me to attend the Convention at Halifax, as I had intended.

Our finances are in a very satisfactory condition, and it would have given me more than ordinary pleasure to have submitted this statement in person at the convention.

The statement will speak for itself, but doubtless the several committees that are directly interested in the finances of the Association will allude in their reports to the items in which they are severally interested.

The outstanding figures in the report are the gross cash receipts for the year; $85,880.16, which amount is $14,507.28 in excess of the previous year.

The surplus assets, after providing for depreciation of furniture and fittings and bad and doubtful debts, amount to $36,969.69. This is an increase of $8,374.24 over last year.

The revenue, including $7,273.23, from INDUSTRIAL CANADA, was $62,957.87.

The revenue from members' fees and interest from investment amounts to $55,664.64. It has always been the aim of your Finance Committee to endeavor to make the revenue from these two items equal the expenses of the Association. It is gratifying to be able to state that after deducting from the above amount $54,648.73 (the total amount of expenses), including that paid on account of the Workmen's Compensation Act, and the extra Provincial corporation test case, a surplus is left of $1,015.91 in favor of the revenue from this source.

With these few remarks I have much pleasure in submitting by proxy the financial statement for the year 1912 and 1913, duly audited and signed.

Schedule "C" is a list of our investments.

(Signed) GEO. BOOTH,
Treasurer.

1913.

Total cash statement to July 31st		$81,056 18
Less amount forward from 1912	$15,832 98	
Less INDUSTRIAL CANADA	6,491 95	
		22,324 93
		$58,731 25
INDUSTRIAL CANADA		27,148 91
Total cast receipts 1913		$85,880 16

1912.

Total cash statement to July 31st		$55,938 14
Less forward from 1911	$2,227 09	
Less INDUSTRIAL CANADA surplus	7,267 57	
		9,444 66
		$46,493 48
		24,879 40
		$14,507 28

REPORT OF THE GENERAL SECRETARY

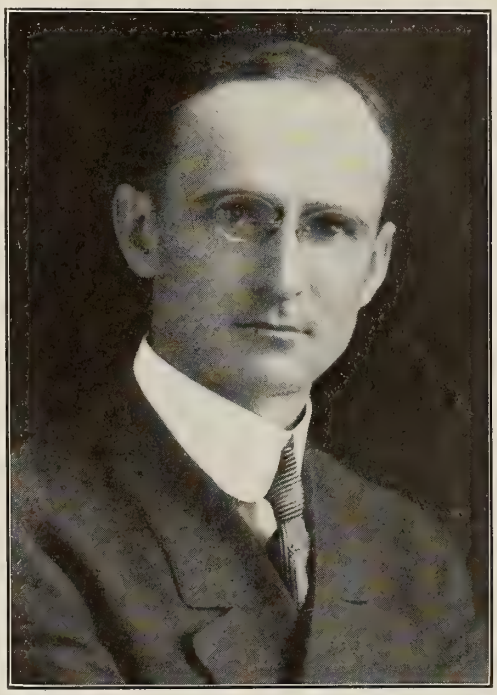
In presenting herewith my seventh annual report as Secretary of your organization, I shall follow the precedent of the past few years and refrain from commenting, except in a very general way, upon the work that is so fully covered in the various Committee reports that will presently be laid before you.

That we have had a most successful year will, I think, be readily admitted by all, once these reports have been perused and their significance comprehended. Our membership shows the largest increase of any year since 1906. Under the operation of the new schedule of fees we have added another $15,000 to our income, by the judicious expenditure of which we have greatly improved our service and accomplished many practical results. INDUSTRIAL CANADA, bigger and brighter than ever, has a surplus for the year of $7,200 to its credit, while our total surplus assets have risen from $28,600 to $36,900. A new edition of the "Trade Index" has been brought out, containing numerous features that mark it as distinctly in advance of any previous edition; it, too, will yield the Association a gratifying profit.

Our departments have all been unusually active, and under the direction of capable and hard-working committees have

rendered excellent service. We have launched a widespread campaign for the reduction of our annual fire waste. We have secured the adjustment of many a transportation and many a tariff grievance by our well-reasoned appeals to the Board of Railway Commissioners and to the Board of Customs. We have carried through to the Privy Council stage our fight to determine the relative jurisdiction of the Federal and Provincial Governments in the matter of company incorporation and company licensing. We have evolved a safe and sane solution of the problem of Workmen's Compensation, which we hope to see adopted sooner or later by all the Provinces.

Generally speaking, the work of the past year has been of a character that necessitated an unusual amount of research, correspondence and compilation. The application of the new scale of fees, affecting as it did several hundred members, was not consummated without a good deal of explanation, and in some cases of persuasion. The inquiry of the Transportation Department into the matter of delays to freight in transit and in terminals precipitated a correspondence that at times it seemed almost impossible to cope with, to say nothing of the tabulation subsequently compiled therefrom, which formed one of the most comprehensive exhibits ever laid before the Board of Railway Commissioners. In the absence of any reliable statistics of accidents that could be used as a basis for the classification of industrial risks, it became necessary for our Legal Department, in the preparation of its case on Workmen's Compensation, to undertake an investigation that developed into a task equally as formidable as the one just mentioned. A membership campaign carried on with regularity over a period of six months was another item entailing a great deal of routine work and correspondence, while the collection and compilation of materials for the new "Trade Index" engaged the exclusive attention of two members of our staff for nearly eight months.



MR. G. M. MURRAY
General Secretary

These activities, typical of many such that might be mentioned, led at times to a condition of congestion that may have interfered with the efficiency of other branches of our service. While in one way this is to be regretted, it was not without its compensation in other directions, for it pointed very clearly to the need for more system and better regulation of our office methods. A re-allotment of duties among the various members of the staff has already been attended by beneficial results. But I feel we should go further. Subject to the approval of the proper Committee, I propose during the coming year to standardize all our filing systems, even at the cost of discarding much of the equipment we now possess, and so to index our records, correspondence, documents and reports that everything will be accessible at a moment's notice. The business of the Association has now attained such proportions, and worked itself down to such well-defined channels, that not only is it quite feasible to evolve an office system that will serve the future as well as the present, but it is sound economy for us to provide ourselves with such a system, even though its installation may cost us a few hundred dollars.

As anticipated in my last report, the opportunity presented itself this year of consolidating into one suite the three suites that heretofore served as our head office in the Traders Bank Building, Toronto. In effecting the change we have acquired about 500 square feet more space than the aggregate amount previously occupied, but its arrangement has been planned to such advantage that it seems to give us much more than that amount. We now have two committee rooms instead of one, the two being convertible into one for meetings of the Executive Council; we also have, what we never had before, suitable storage for supplies, and a members' writing room where visiting members can attend to their correspondence, always with the services of a staff stenographer. Altogether the new offices are a great improvement; not only will they enable our different departments to keep more closely in touch one with another, and so increase the efficiency of the whole, but they cannot fail to impress the visitor with the dignity and importance of the organization which they house. The cost of alterations was in the neighborhood of $1,200, and the increased rental charge incurred is $675 per annum. This may be subject to a further increase after the first of January, 1917, when our lease of the major portion of the premises expires.

The Staff.

The personnel of the head office staff has undergone very few changes since our last annual meeting. We were sorry to lose Mr. Breadner, whose resignation as Manager of our Tariff Department took effect in October. On account of the technical knowledge his position called for, he promised to be a difficult man to replace, and I think we may consider ourselves very fortunate indeed in being able to persuade Mr. Bristol with his exceptional qualifications to fill the vacancy. For the purely clerical duties we have found it necessary to enlarge the staff to keep pace with the increasing volume of work to be done, otherwise there have been no changes. In the branch offices there have been two new appointments, Mr. R. V. Harris, Halifax, as Secretary of the Nova Scotia Branch, vice Mr. M. McF. Hall, resigned; and Mr. Georges Morriset, Quebec, as Secretary of the Quebec Branch, vice Mr. L. A. Moisan, resigned. Both of these officers were engaged on a straight salary basis, instead of being paid a percentage of the revenue from the fees of the Branch, as was formerly the case, and the British Columbia Secretary, Mr. Alexander, has since been placed upon the same footing in order that the practice might be uniform throughout. At the head office you now have a salaried staff of nineteen, whose entire time is given to your service. There are in addition three translators, who give you part of their time only, and an insurance staff of fourteen, whose services you utilize under an arrangement with the Central Canada Manufacturers' Mutual Fire Insurance Company. Those employed by the Association at outside points number nine more. All told, therefore, you have on your pay roll forty-five persons. From an intimate acquaintance with the members of this staff, and a close observance of their work, I am happy to be able to report that they are as competent, as painstaking, and as loyal a body of men and women as can be

found in the employ of any public or private corporation in Canada. You have dealt generously by them, and they in turn are giving you at all times the best that is in them.

The Branches.

The comments which I offered a year ago on the subject of Branch activities are equally applicable to-day. Montreal, Toronto and Winnipeg Branches all report a busy year with useful results accomplished; the holding of this Convention in Halifax has revived, temporarily at least, the Nova Scotia Branch; the other branches have simply marked time, if they have not actually retrograded. In the large centres of population the community of interest among manufacturers is real and easily appealed to, and the possibilities of successful co-operation through a branch are great in proportion, but in the smaller centres, and in the Provinces with their scattered membership, not only is the community of interest noticeably less, but what there is of it is occasional rather than permanent. While I feel, therefore, that we should continue to assist and encourage such of our local organizations as are making the most of their opportunities, I am reluctantly compelled to believe that, far from encouraging the establishment of new branches, we should authorize their formation only when a careful examination of the situation has shown that such action would probably be justified by the results; and further, that provision should be made under our by-laws for the automatic forfeiture of the rights and privileges of those branches that fail, during a reasonable period of time, to show signs of activity. The central activities of the Association are its most useful activities, and it would seem unwise that they should be trammelled in any way by financial reservations made for the use of branches that fail to profit thereby.

Trade Sections.

Our trade sections have had a normal year so far as the number of their meetings is concerned. But here, too, as in the case of the branches, some are influential factors in the life of the Association, while others exist in name only. We are carrying on our books to-day sections that have not met in five years; at the same time we are handling the work of other sections that meet regularly once a month the year through. All told, there are twenty of them, but not more than thirteen can be said to be at all active. With the work of these sections I take it you will not wish to concern yourselves; suffice it to say that they serve a useful purpose in bringing together the members in a given trade, and in settling many of the miscellaneous problems peculiar to such trade.

The New By-Laws.

One of the most important matters to receive consideration at this meeting is the proposal to provide our Association with a new set of by-laws. As the one whose experience, more than any other, has been drawn upon in shaping the proposed changes, may I be permitted very briefly to explain the reasons which have prompted the line of action recommended in the case of a few of the most significant of these changes.

Heretofore our fiscal year has ended July 31st, and the annual meting has been held in September. The suggestion now is to terminate the year April 30th, and to hold the convention in June. The two main considerations behind this suggestion are, first, the difficulty, on account of the holiday season, in holding committee meetings in August, preparatory to the annual meeting, and second, the obstacle which the present arrangement places in the way of individual members of your staff taking their vacation during the summer months. Incidentally, by meeting in June we would have the advantage of reviewing the work of the year just after the heaviest of it is over, and while it is still fresh in the minds of all, instead of after the holiday season, during which everything has necessarily been somewhat quiet.

The provision for the appointment of an Executive Committee from among the members of the Executive Council, is prompted by the desire to centralize in one body the business management of the Association's affairs, in place of dividing that responsibility over three or four different committees as at present. Under the existing by-laws, the Finance Committee supervises most, but not all, of the expenditure, and has next to nothing to do with the collection of our revenue. The Membership Committee is the one that is always consulted in any matter relating to fees; INDUSTRIAL CANADA, with receipts aggregating $29,000 this past year, and disbursements of $22,000, comes under the control of another Committee, while the "Trade Index," a $10,000 venture, is supposed to be in charge of still a third Committee. The centralization of authority in such matters would seem to be a very necessary precaution for an organization that has assumed the proportions that we have assumed. This centralization would have the added advantage of creating a Committee for whose meetings there would always be a programme of work sufficiently important and attractive to ensure a good attendance, whereas under the present arrangement the incentive to attend is frequently lacking to such an extent that we are without a quorum for the transaction of necessary business. Let me make it clear and emphatic that the Executive Committee is not to supersede the Executive Council in any way, nor to rob the Council of any of its functions. Its actions and findings, like those of any other committee, will still be subject to the Council's revision. It will endeavor, however, to relieve the Council of as much routine as possible, thus leaving the latter free to devote more time and attention to the consideration of questions of general policy.

Contingent Account.

The creation of a contingent account, out of which the current monthly expenses of the Association may be met, is designed to facilitate the payment of accounts without unduly trespassing upon the prerogative of the Treasurer. Hitherto the Treasurer, in conjunction with your Secretary, has signed all cheques, numbering sometimes sixty to seventy-five a month; under the plan proposed he will sign one or at most two cheques each month, and then only for such amounts and for such purposes as the Executive Committee shall have approved. The cheques so signed, averaging perhaps $8,000 each, will be deposited to a contingent account, which at the discretion of the Executive Committee may either be subject to the signature of the Secretary alone, or to the joint signatures of the Secretary and some other officer. It may be assumed, of course, that the Executive Committee would require the officers authorized to cheque against this account to be bonded to an amount that would afford the Association ample protection. I am aware that by some members this move is not viewed very favorably, that in their opinion it is desirable to surround the payment of accounts with a certain amount of difficulty rather than make it too easy for the Association's money to be paid out. Personally I would like to see the proposal adopted, and I believe it would simplify and expedite our accountancy work, but if for any reason this meeting should deem it unwise to make the change, it is only right of me to state that I see no serious objection to a continuation of the present practice.

All of which is respectfully submitted.

G. M. MURRAY.

RECEPTION & MEMBERSHIP

The old saying that results speak for themselves is more or less applicable to the work of all committees. It is especially so, however, to the work of your Reception and Membership Committee, not only because of the ease with which its results can be comprehended, but because of the readiness with which they can be compared with the progress of previous years.

The following tables and statistical data have been prepared with a view to enabling this meeting to appreciate at a glance what development the Association has experienced during the past five years, financially as well as numerically:

Table 1—Growth in Membership by Years.

Oct., 1900	340	Aug., 1907	2,161
Oct., 1901	825	Aug., 1908	2,134
Oct. 1902	1,080	Aug., 1909	2,356
Oct., 1903	1,275	Aug., 1910	2,608
Aug., 1904	1,511	Aug., 1911	2,725
Aug., 1905	1,839	Aug., 1912	2,754
Aug., 1906	2,104	Aug., 1913	3,007

Table 1 shows the increase in our numerical strength year by year from 1900 to 1913. It will be observed that we have never suffered a loss, though sometimes the gains have been small. We passed the first thousand mark in 1902, the second thousand mark in 1906, and this year (in July to be exact), we passed our third thousand mark. The net gain for last year was 254, for the past five years the average yearly gain was 165.

Table 2—Applications and Resignations.

	Applications.	Resignations.	Net Gain.
1909	323	152	171
1910	384	132	252
1911	269	152	117
1912	223	194	29
1913	488	235	253

In the total number both of applications and resignations accepted, the transactions of the past year have been unusually high, but it is satisfactory to note that the net gain is also high. Further comment will be offered on this point later. Meanwhile, it may be noted that this year's gain has been the largest since 1906.

Table 3—Membership by Provinces.

	1909.	1910.	1911.	1912.	1913.
Nova Scotia	86	88	83	82	104
Prince Edward Island	3	2	2	2	4
New Brunswick	48	50	47	43	63
Quebec	547	635	690	718	773
Ontario	1,444	1,602	1,657	1,677	1,696
Manitoba	98	102	110	101	232
Alberta and Saskatchewan	19	16	23	21	32
British Columbia	111	113	113	110	103

Table 3 shows the distribution of the membership by Provinces from 1909 to 1913. Up to 1912 the gains were confined almost altogether to Quebec and Ontario; Manitoba, Alberta and Saskatchewan were barely holding their own, while Nova Scotia, Prince Edward Island, New Brunswick and British Columbia all showed small losses. This year all Provinces share in the increase with the single exception of British Columbia, which has gone back seven.

Table 4—Membership Classified According to Fee Paid.

Province.	$10	$15	$25	$35	$50	$100	$150	Total
Nova Scotia	72	8	14	5	3	1	1	104
P. E. Island	2	2	..	..	..	..	..	4
New Brunswick	36	12	9	2	4	..	..	63
Quebec	339	192	97	64	59	10	12	773
Ontario	843	350	198	193	88	16	8	1,696
Manitoba	174	35	13	8	2	..	..	232
Alberta and Sask.	16	9	1	1	4	1	..	32
B. Columbia	56	20	11	10	4	1	1	103
	1,538	628	343	283	164	29	22	3,077

Table 4 shows the number of members in each Province paying on the $10 basis, the number paying on the $15 basis, the number paying on the $25 basis, and so on right through the schedule. As will be seen, over 50 per cent. of the entire membership pay the minimum fee, over 20 per cent. pay in the class next above the minimum, and over 11 per cent. in the class next above that; in other words, while provision is made for classes ranging from $10 minimum to $150 maximum, nearly 82 per cent. of the membership pay $25 a year or less.

With the above table before us, and assuming that the membership remains stationary, it is a simple problem of multiplication and addition to estimate our total revenue from fees for the coming year, distributed according to Provinces. The table which follows shows this worked out.

Table 5—Estimated Income from Fees.

Based on Standing of Membership August 1st, 1913.

Province.	$10	$15	$25	$35	$50	$100	$150	Total
N. Scotia.	$720	$120	$350	$175	$150	$100	$150	$1,765
P. E. Isl'd	20	30	...	...	...	...	...	50
N.B.	360	180	225	70	200	...	...	1,035
Quebec	3,390	2,880	2,425	2,240	2,950	1,000	1,800	16,685
Ontario	8,430	5,250	4,950	6,755	4,400	1,600	1,200	32,585
Manitoba	1,740	525	325	280	100	...	...	2,970
Alberta and Sask.	160	135	25	35	200	100	...	655
B. Col.	560	300	275	350	200	100	150	1,935
	$15,380	$9,420	$8,575	$9,905	$8,200	$2,900	$3,300	$57,680

While the $10 class comprises over 50 per cent. of our membership, it furnishes only a little more than 25 per cent. of our revenue. The $10, $15 and $25 classes taken together, which, as was noted above, comprise nearly 82 per cent. of the membership, furnish less than 58 per cent. of our revenue; the classes above $25, which comprise only 18 per cent. of the membership, furnish 42 per cent. of our revenue.

Heretofore this has shown itself to be a very conservative method of estimating our probable income, as will be seen from Table 5. In this we show first the estimate at the beginning of the fiscal year, based on the membership as it then stood, and next the actual amount collected in fees during the year.

Table 6—Fees Estimated and Fees Collected.

Year.	Estimate.	Collections.
1909	$25,775 00	$30,447 25
1910	30,780 00	33,091 56
1911	33,720 00	35,859 05
1912	36,075 00	42,123 74
1913	42,030 00	57,053 67
1914	57,680 00	.....

The excess of collections over the estimate in each case is accounted for partly by the steady growth in the membership and partly by the higher fees required under amendments passed in 1910, and again in 1912. As the latter cause will cease to affect the situation for the coming year, it would seem unwise to count on anything more than the estimate shown.

Dividing the receipts for each year by the number of members in good standing at the close of the year we find that for 1909 the average fee paid was $12.92; for 1910 it dropped to $12.69, for 1911 it rose to $13.16, for 1912 it rose still higher to $15.29, while for the year just closed, due to the large number affected by the increase fee in August, it jumped to $18.97.

From whatever angle we view the membership returns, there is always evidence of satisfactory progress. For years it has been the practice of our predecessors on this Committee to discourage the hope of large future gains, prompted doubtless by the belief that a pace so long sustained must soon slacken off, yet almost invariably the report had been in nature of an agreeable surprise. It is to be hoped that the gain made in 1913 will be duplicated in 1914. That there are still a sufficient number of eligible and desirable manufacturers outside the fold to make such a result possible is definitely known to your Committee. They can be enrolled, too, if properly and systematically canvassed. It is only fair to state, however, that the per capita expense incurred in securing applications keeps increasing year by year as the field narrows down to the more difficult cases, and under these circumstances your Committee deem it prudent to suggest that for the future we should be satisfied with more moderate gains.



MR. C. B. LOWNDES
Chairman Reception and Membership Committee 1912-1913

The large majority of the applications received during the past year are definitely attributable to three lines of effort directed by your Committee, the first being a campaign through the medium of INDUSTRIAL CANADA, the second an appeal based on the publication of the "Trade Index," and the third personal canvass by members of the staff.

Early in the year arrangements were made with the INDUSTRIAL CANADA Committee for the publication, for a period of six months, of a colored insert, setting forth in various ways the advantages of membership. A list of 500 of the most promising prospects was then prepared, and the names of these parties were temporarily placed upon the paper's mailing list. Copies of the insert alone were also sent each month to a further list of 500 non-members. Although an application form was printed on each insert, very few of them were used for that purpose until towards the end of the six month period, when they began to come in quite freely. The number of applications directly traceable to this campaign would perhaps hardly justify the expense incurred, viz., some $500, but no doubt it frequently helped to pave the way for subsequent appeals of a different character.

The argument afforded by free listing in the "Canadian Trade Index" was used to good advantage. Many manufacturers were broad enough to recognize their obligations to an organization that was giving them valuable free advertising; others joined in order to profit by the extra prominence given in the classification to the names of members.

As usual, however, the most effective results were obtained by personal solicitation. While this work was shared in by all members of the staff, the efforts of the two Assistant Secretaries, Mr. Meldrum of Montreal and Mr. Poussette of Winnipeg, are deserving of special mention. To the former must be given credit for most of the gains in Nova Scotia, Prince Edward Island, New Brunswick and Quebec; the latter is entitled to credit for practically all the gains in Manitoba.

The one regrettable feature of the year's work was the unusually large number of resignations it was found necessary to accept. The great majority of these were due to causes quite beyond the power of your Committee to remedy, such as amalgamations, liquidations, changes of ownership, and discontinuance of manufacturing operations. Of the remaining resignations a considerable number were second memberships, by accepting which the real strength of the Association was not affected, though its revenue was slightly reduced. A few members, probably fifteen all told, declined to pay the increased fee even after being reasoned with, so with them there was no alternative. Cases of professed dissatisfaction were rare; a more frequent cause for the acceptance of resignations was the inability of your Committee to draw any reply from members who had fallen behind with their fees and who were situated at points where it did not pay to have them visited by a member of the staff. In such cases the co-operation of members outside of the Committee was often solicited, sometimes to advantage. Generally speaking, a constant effort has been made to minimize losses, whatever the cause, and a resignation is accepted only when necessary, or when it is thought to be in the best interest of the Association so to act.

By-law Revision.

Your Committee desire to place themselves on record as approving those sections of the proposed new By-laws which relate to the work under their charge. In stipulating that an applicant for membership must employ at least five hands in his mechanical department, the Association is taking a desirable step in the direction of more precisely defining what shall constitute eligibility for membership and is acting in conformity with the usage of the Federal census, which does not recognize as a manufacturer anyone employing less than that number. Beyond this point no attempt is made to define what is a manufacturing business and what is not. Past experience has shown that it is an exceedingly difficult matter

to do so without setting up standards that would sometimes have to be broken, so it would seem wise to continue with the Membership Committee the responsibility of dealing with each application separately on its merits.

The provision empowering the Executive Committee under certain circumstances to accept applications is prompted by a two-fold desire: first, to place the services of the Association as quickly as possible at the disposal of new members wishing to use them, and, second, to secure at the earliest possible date for the Association the benefit of the fee which these new members will pay. It is contemplated, of course, that the Executive Committee will exercise its power of acceptance only where the eligibility of the applicant is beyond question, and where all the requirements laid down by the Membership Committee are fully complied with. As the great majority of the applications received are of this kind, and with the Executive Committee meeting perhaps twice a month, it follows that the work as a whole will be much more expeditiously handled, while incidentally, too, it will not be necessary for the Membership Committee to meet so frequently as heretofore.

Receptions.

The reception and entertainment features of the year have been few. As time goes by there seems to be a tendency, whether wisely or not, to pay less and less attention to the entertainment question and the holding of lectures and banquets. The only visitor of note whom the Association entertained since our last annual meeting was Dr. Gustav Stresemann, President of the German-Canadian Economic Society. The enthusiasm with which Mr. Franklin H. Wentworth of Boston was received when he addressed the Ottawa Convention on the subject of Fire Prevention suggested the desirability of bringing him back, and later on he spoke under the auspices of the Association at Montreal, Toronto, Hamilton, London and Halifax. In the matter of banquets, other than the usual convention banquet, nothing is now done except what each branch undertakes for itself. During the past year functions of this kind have been carried out very successfully by the Quebec, Montreal, Toronto, Hamilton and Manitoba Branches, and another one by members in Windsor and Walkerville, who have not yet formally organized as a branch, but who contemplate doing so in the near future. A very enjoyable luncheon, at which the President entertained members of the Executive Council in June, completes the list of such features for the year.

Convention Arrangements.

As usual, it fell to the lot of your Committee to superintend all arrangements in connection with the convention. It is hoped that on the whole they have met with your approval. For the programme of entertainment provided here in Halifax, and for the various provisions made for your convenience and comfort while in the city, you are indebted to the Committee of the Nova Scotia Branch, who have spared neither time nor money to ensure the success of the meeting.

All of which is respectfully submitted.

G. M. Murray, *Secretary.* C. B. Lowndes, *Chairman.*

INDUSTRIAL CANADA & COMMERCIAL INTELLIGENCE

The report which follows is submitted jointly by your Industrial Canada and Commercial Intelligence Committees. For the past two years these Committees have been meeting together, and working in the closest co-operation, an arrangement which will appeal to the Association as eminently fitting when it is recalled that Industrial Canada is the natural medium of conveying commercial intelligence to the membership at large.

Industrial Canada's work has been recognized by your Committee as being of a two-fold character. Within the Association its function is to keep the members posted on all industrial subjects which are likely to affect them in any way, and to report to them the work of the Executive Council and of the various Committees and Departments. Outside of the Association it is the work of Industrial Canada to present a fair public statement of the Association's objects and policies. In both lines of work we believe Industrial Canada has been eminently successful during the past year. Its increasing circulation among both members and non-members has given it a wider influence than ever before, and its increased size and greater breadth have placed it in an enviable position among Canadian publications.

Editorial.

Special departments, which have noticeably increased the paper's interest, have been added during the year. In the departments devoted to Insurance, Transportation, Tariff and Law the developments of the month are presented in terse readable form. The pages are under the supervision of heads of the departments, and the information contained in them is of practical value. We believe that the special articles and reports, which Industrial Canada is able to give for the most part exclusively, are part of the important privileges of membership in the Association. That the public look to Industrial Canada for an exposition of the Association's views is shown by the extent to which its articles and editorials have been reprinted and commented on by the newspapers of Canada. Over three hundred and fifty references have been made to Industrial Canada in newspapers and journals of Canada, England and other countries during the year ending July 31st, 1913.

Financial.

The detailed financial statement will be found in the Report of the Treasurer. The gross earnings have again shown a satisfactory increase, being $29,058.69 for the twelve months, as compared with $26,270.60 for the preceding year. The cost of publication has grown from $17,524.04 in 1911-1912 to $21,785.46 in 1912-1913. The comparatively large increase is accounted for mainly by the decision of your Committee to put back more of the profits into improving and strengthening the paper and by assuming a greater share of the general Association expenses. Several pages have been added to the regular monthly issue; there has been a more liberal use of engravings and special designs; and in every way possible the typographical appearance of the paper has been improved. At the same time your Committee assumed the cost of the publication of five hundred extra copies monthly for six

months, which were distributed in connection with the Reception and Membership Committee's membership campaign. Also when it became necessary for the Association to rent an additional suite of rooms, including a committee-room, the entire cost was assumed by the INDUSTRIAL CANADA Committee. Finally the Association's efforts to develop research work along industrial lines in our universities and colleges was given practical support by the institution of scholarships, which are now given in six colleges. The cost of these is met out of the INDUSTRIAL CANADA revenues. We have satisfaction then in being able to hand over to the general Association funds a net profit for the year of $7,273.23.

A Canadian Paper.

INDUSTRIAL CANADA is essentially a Canadian publication. Its practice is consistent with its preaching. Month after month it places the Made-in-Canada idea before its readers, and urges them to buy from Canadian producers. It carries this theory into practice by refusing the advertisements of foreign manufacturers. While the paper's revenue suffers severely from this curtailment of its field, your Committee have the satisfaction of knowing that Canadian manufacturers appreciate the stand of the Association's paper, and that they give tangible expression to their appreciation by a splendid support of its advertising pages. We wish to record our thanks to the large number of advertisers, who alone make it possible for us to publish INDUSTRIAL CANADA at its present high standard.

Circulation.

Consistent with the growth in the general membership has gone a growth in the circulation of INDUSTRIAL CANADA. The average circulation for the year of 1911-1912 was 3,600. For the year 1912-1913 the monthly average increased to 3,966. At the same time the size of the individual issues was increased. The average size, exclusive of the Convention number, in 1911-1912 was 104 pages. For 1912-1913 this grew to 120 pages. Your Committee would point out that in spite of the greater number of copies printed and the increased number of pages per copy, there has been no increase in the advertising rates. However, the heavy increase in the cost of production consequent upon these increases in size and number may make it necessary for the new Committee to consider carefully the advisability of increasing the rates. For the same reasons your Committee would recommend an increase in the subscription price to two dollars a year. The individual copy now costs approximately twenty cents, exclusive of postage. A greater issue would reduce the cost per copy somewhat were it not that we keep adding to the size from month to month. Under the circumstances it would appear necessary to have the subscription price more nearly approximate to the cost of publication.



MR. J. F. M. STEWART
Chairman of the Industrial Canada and Commercial Intelligence Committees, 1912-13

Scholarships.

The results from the scholarships which were presented by INDUSTRIAL CANADA to the universities and agricultural colleges have been entirely successful. The prizes have been given in every case for actual research work done by the student, and the competition has interested a large number of students in economic subjects. We feel amply justified in recommending a continuance of the scholarships for the coming year. We believe that they tend to bring the educational institutions of the country into an intimate relationship with the industrial life of the nation. It is a pleasure to record our appreciation of the generous assistance given by the Presidents, Registrars and Faculties of the colleges in arranging the subjects for competition and in judging the essays submitted.

Membership Campaign.

During the early part of the year your Committee cooperated closely with the Reception and Membership Committee in a campaign for new members, which the report of that Committee will show was entirely successful. For six months five hundred extra copies were printed and circulated among manufacturers who were not members of the Association, and these issues contained special advertising pages setting forth the advantages and conditions of membership. While this extra circulation made a considerable inroad into the net earnings of the publication, it resulted in a valuable addition to the membership list of the Association.

Commercial Intelligence.

The Commercial Intelligence service afforded by INDUSTRIAL CANADA has consisted of certain features which have appeared in the columns of the paper with more or less regularity throughout the year. The various departments already mentioned as dealing with transportation, insurance, tariff and legal matters may fairly be regarded as constituting part of this service. In addition there have been published monthly a list of new freight tariffs filed with the Board of Railway Commissioners for approval, a list of trade inquiries from prospective buyers of Canadian goods, extracts from the reports of Canadian Trade Commissioners and British Consuls in foreign centres, clippings of general interest from trade and technical journals, and items of industrial news. Frequently, but not regularly, the paper has given advice regarding new patents issued, new steamship services established, changes in foreign tariffs, new legislation bearing upon trade or industry, Federal and Provincial Orders-in-Council, departmental rulings and municipal ordinances affecting business houses. Generally speaking, it has endeavored to keep the membership well informed as to current happenings in so far as they had an application to the commerce or industry of the country. And in this we feel it has been fairly successful.

Duty Stamps.

The supply of Australian and South African duty stamps, which it was arranged would be kept on hand for the convenience of Canadian business houses sending advertising literature through the mail to these countries, was drawn upon to only a very limited extent. Anticipating that the consignment might be withdrawn if larger sales were not reported, a circular announcement was sent to every firm shown by the records of the steamship companies to be doing an export business to either country. The replies received indicated that the service might as well be discontinued, so action was taken accordingly and the consignments returned.

British Empire Trade Mark Association.

An organization bearing the above name has been formed with headquarters in London, having for its object the

popularizing of a registered trade mark, certifying with respect to any goods or packages upon which it is placed that they are the product of some specified portion of the British Empire. The thought of the promoters is, of course, that under a fairly general use of the mark inter-imperial trade will be greatly stimulated, for it is but natural to suppose that a Britisher in making his purchases will, other things being equal, give preference to what he knows to be the product of the Empire. Our Association has been asked not only to endorse the principles for which the British Empire Trade Mark Association stands, but to arrange for the appearance before the Dominion's Royal Trade Commission of Canadian witnesses who will testify the value of this means of promoting inter-Imperial trade. Upon the recommendation of your Committee the Executive Council expressed itself as fully sympathetic with the object aimed at, but intimated that it would need to satisfy itself as to the feasibility of properly protecting the mark against unauthorized or fraudulent use before committing itself any further.

On several occasions during the year your Secretary has been asked to advise as to the status of certain publications in which members were being solicited to advertise. One of these was found upon investigation to be a piratical sheet trading upon an alleged connection with organized labor, but which the labor movement absolutely repudiated, and although quite useless as an advertising medium, it was nevertheless reaping a harvest from those who thought that in extending it their patronage they were indirectly securing themselves in the favor of their employees.

Further discussion and investigation elicited the fact that many business houses were being preyed upon, with varying degrees of success, by unscrupulous parties, whose propositions were nothing but a hold-up, if not actual blackmail. Flattering notices that would be inserted for a consideration, and denunciatory articles that would be inserted as an alternative, constituted one group of such propositions; another was the annual canvass for the Freight Handlers or Switchmen's Union, to refuse which probably meant that incoming and outgoing freight would be subjected to rough usage and annoying delays.

The number of such schemes is legion, and in the aggregate they must represent a very large toll of what is commonly called graft. Your Committee are aware, of course, that most firms, under most circumstances, are quite able to take care of themselves. At the same time there can be no doubt that, by a little freer co-operation among business houses, what is becoming a serious evil could be greatly checked. Business organizations in several cities of the United States have moved in this direction with gratifying results. As there seems to be a feeling, however, that the matter is not a fit one for this Association to interest itself in, your Committee simply desire to state for the benefit of the individual member who finds himself in need of advice or information that the staff will always be pleased not only to receive word of such propositions, but to conduct such investigations and to make such reports as may appear wise under the circumstances.

The development of industries in Canada during the past three years and the great increase not only in the number of manufacturers, but also in the variety of products, made a complete revision of the "Trade Index" necessary. At the last Convention this Committee was instructed to make preparations for the publication of a new edition, and in pursuance of these instructions work on a new volume has been in progress since the first of January. The volume is now on the press, and will be distributed within the next couple of weeks.

It will be unnecessary to describe in any detail a book which in its previous volumes has already become the standard directory of manufactures for Canada. In its general outlines the 1913 edition will follow the edition of 1910. A number of changes, however, will be made where they have been shown by experience to be desirable. A new section has been added which will contain a considerable body of general industrial and commercial information. In this department an effort has been made to place in the hands of foreign buyers in brief form a synopsis of the regulations and customs governing Canadian export business. At the same time, in order that Canadian manufacturers may quote on foreign business, tables of weights and measures and coinage, with their equivalents in Canada, have been added. A typographical improvement in the book will be noticed in the use of a super-calendered paper for the advertising sections.

No definite statement covering the finances of the new edition can be made until the publication is complete. The cost has risen considerably since the last edition was brought out, but your committee have instituted a number of economies which will help to off-set the increases. Your Committee take this opportunity of recording their appreciation of the generosity of the members in their support of the book through its advertising columns. The revenue from this source will be considerably larger than in 1910. We have every reason to believe that the surplus revenue will be in excess of the 1910 surplus revenue of $2,500.

The "Trade Index" will be distributed in an edition of 7,000, of which 1,000 have been acquired by the Dominion Government for circulation through the Canadian Trade Commissioners abroad. These will be added to by a distribution through a select list of importers of Canadian manufactured products in the various countries with which Canada does business. In Canada, besides being sent free of charge to every member of the Canadian Manufacturers Association, a copy will be placed in the offices of the leading engineers, architects and construction companies. For its general circulation the price has been fixed at $3.

All of which is respectfully submitted.

G. M. Murray, *Secretary.*

J. F. M. Stewart, *Chairman.*



An American view of the parcels post system.

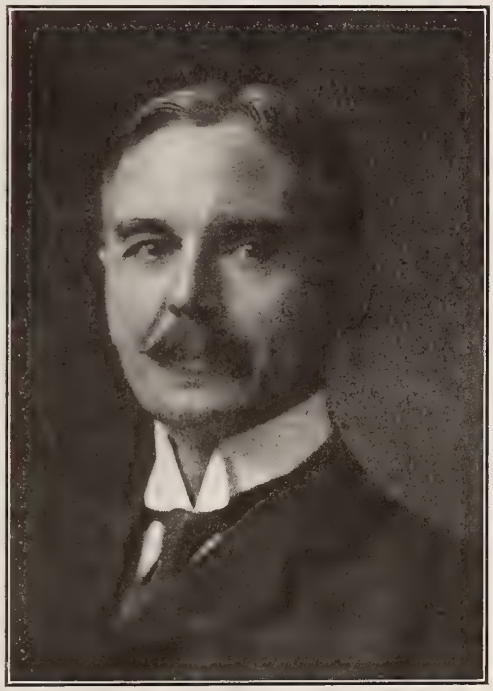
INSURANCE

At the Ottawa Convention last year considerable prominence was given to the subject of Canada's fire waste and its prevention, and the Insurance Committee were charged with the responsibility of stirring up public sentiment on the subject. We were moreover directed to support and heartily co-operate with other Associations in an effort to minimize the evil.

We are glad to report that a good start has been made in an effort to arouse the public conscience although from the standpoint of practical results, as shown by the ever increasing rate of our fire waste, little or nothing seems to have been accomplished.

Following Mr. Franklin H. Wentworth's interesting address in Ottawa, we were able to arrange for him to speak at Montreal, Hamilton, London, Toronto and Halifax. At each place much enthusiasm prevailed and as a result there followed in Ontario the organization of the Ontario Fire Prevention Association, and our Montreal Branch is leading the way in the formation of a similar organization in the Province of Quebec.

We feel that we should now most strongly recommend that the Association's fullest support should be given to these two movements and that every possible effort should be made by the Insurance Committee and the branches of the Association to assist them in an energetic and forceful campaign. The fire waste is a tremendous evil. Much of it is due to wilful, if not criminal, carelessness, and while we are destroying property with such inexcusable prodigality, little further alleviation in the matter of insurance rates can be looked for.



MR. H. W. FLEURY
Chairman Insurance Committee 1912-13—Re-elected 1913-14

The Fire Waste of the Dominion.

As indicated in the last paragraph, our fire waste is increasing at a rapid rate. For the first eight months of 1913 we have burned up property, exclusive of damage to forests and timber reserves, at a rate of two and one-half million dollars per month.

There are two outstanding facts in connection with the record of 1913. The first is that notwithstanding the absence of conflagrations (of which three occurred in the same period of last year), our aggregate fire waste exceeds that for the first eight months of last year by $2,300,000. The second is that whereas in the first eight months of last year we had in Canada 169 fires which involved loss in excess of $10,000 in each case, we have this year 309 in the same period. Last year our manufacturers contributed 86 of the number, and this year 121. It is impossible to make any reasonably satisfactory explanation of these things, but facts are stubborn; and this record is bad enough to cause natural alarm and consternation.

National Fire Protection Association.

We have referred in past reports to the work being carried on by this Association, of which we are an "active" member and upon the Executive Committee of which we also have representation. It is worthy of record here that at their Annual Convention held in New York in May last, a very strong Committee with widely diversified interests, was appointed on Public Information, the objects of which are:

1. To organize State, Provincial and Municipal Sub-Committees and provide for the support thereof.

2. To encourage Legislation for the enforcement of fire protection standards and inspection and good housekeeping conditions.

3. To agitate for the continuous and regular enforcement of such legislation when passed.

4. To take such other steps to further the ends of education, legislation and its enforcement for the protection of life and property against loss by fire as the Committee may deem wise.

We are pleased to state that the Association is represented on this Committee by the Manager of the Insurance Department, and there is perhaps no more hopeful sign than the creation of this Committee affords of securing uniformity of proceedings over the North American Continent in which all State and Provincial Fire Prevention Associations will have similarity of aim and a well devised central support. We believe this new development will be of incalculable benefit to the country at large, and particularly to us in the inception of our work in the Dominion.

Fire Marshal.

We have on previous occasions expressed thorough approval of the effort to obtain Provincial legislation on the subject of the appointment of competent fire marshals under proper legislative power, and as a Committee we are pleased to co-operate with the Fire Prevention Association, the Underwriters and various other bodies in once again presenting the case to the Ontario Government. We are now pleased to report that at the close of the last session of the Legislature the Hon. Attorney-General introduced such a measure as has been so frequently and urgently asked for, but its details were somewhat imperfect and incomplete and it was not proceeded with. We are given to understand by the Hon. Mr. Foy that the bill will be introduced in more complete form early in the next session and we have every hope that we shall be able at our next convention to report its adoption and enforcement. We believe this Legislation will do more to suppress arson, incendiarism and criminal carelessness than anything else and we once again recommend the incoming Insurance Committee to do everything in its power to have such an Act passed, not only in Ontario but in the other Provinces of the Dominion. Manitoba has already set a good example and the Marshal of that Province has done most excellent service, setting thereby a good example to the other Provinces of the Dominion.

Licensed Fire Insurance Companies.

To serve to bring before you, as customary, various salient features of the fire insurance situation of the Dominion, we quote the following figures from the last issue of the Government Blue Book:

Year.	No. of Cos.	Total risk taken.	Av. rate per cent.	Premiums thereon.
1905	40	$1,140,095,372	$1.60	$18,262,037
1910	60	1,817,055,685	1.36	24,684,296
1912	80	2,374,261,732	1.29	30,639,867

The place of origin and the proportion of the business of the country transacted by each, is as follows:

	Canadian.		British.		United States.		
		Per Cent. of Total		Per Cent. of Total		Per Cent. of Total	Total No.
Year	No.	Business	No.	Business	No.	Business.	of Cos.
1905	13	21	17	50	10	18	40
1910	25	23	19	55	16	22	60
1912	28	29	23	47	29	24	80

These two statements evidence the enormous growth of the business, the great increase in the number of companies licensed by the Dominion Government, and that the purely Canadian Companies are showing an advance in the proportion of the business of the country transacted by them.

Decrease in Average Rate.

Attention is once more particularly drawn to the reduction of the average rate chaged by the companies. In 1905 the average rate as would appear from the preceding statement was 1.60 per cent., in 1912 it was 1.29 per cent., and this notwithstanding the fact that much of the growth of the business comes naturally from the newly developed territories, where much higher average rates prevail under present conditions of the country's fire waste, it is not likely that any further reduction may reasonably be expected.

Unlicensed Insurance.

The Government report for 1912 shows a slight increase in the amount of insurance reported in unlicensed companies from $191,038,071 in 1911, to $197,918,437 in 1912, but the percentage of the whole shows a reduction from 9¾ per cent. to 8¼ per cent.

A summary of the unlicensed business follows:

Nature of Property Insured.	Amt. 1911.	Amt. 1912.
Lumber and Lumber Mills	$15,084,067	$12,532,097
Other industrial plants and mercantile establishments	111,077,541	108,319,947
Stock and Merchandise	27,139,444	51,918,433
Railway Property and Equipment..	36,243,272	23,842,495
Miscellaneous	1,493,747	1,305,465
	$191,038,071	$197,918,437

Apparently the licensed companies are absorbing a larger proportion of the fire insurance business of the country than ever, and this is as it should be.

Automatic Sprinkler Equipments.

The financial conditions of the country have not been favorable to the expenditure of large sums of money for protective appliances. Nevertheless in this department of our work we have had a good year. Our engineers have made plans for 39 equipments as against 42 in the preceding year; 20 of these have been completed, tested and approved; 2 are in progress, and 17 are in abeyance. The money invested during the year through our department for this means of protection aggregates close to $100,000, as against $127,000 in the preceding year. On the return of normal financial conditions, it is confidently expected that this department of our work will show a satisfactory increase.



MR. E. P. HEATON
Manager Insurance Department

Legislation.

Alberta is the only Province which has legislated in fire insurance matters during the year, and in the Act passed by that Province drastic provisions on the subject of unlicensed insurance were introduced. After conferring with the Parliamentary Committee and the Legal Secretary, we advised several members, having head offices in the east and branches or places of business within the Province, that the provisions of the Act did not, and could not apply to insurance contracts made without the Province. Additional light may be thrown on the whole subject when the Supreme Court render their decision in the stated cases submitted to them by the Dominion Government, which decision it is expected will shortly be delivered and we shall further report then if it be found necessary to do so.

Respectfully submitted,

G. M. MURRAY, *General Secretary.* H. W. FLEURY, *Chairman.*
E. P. HEATON, *Manager Insurance Department.*

PARLIAMENTARY

The work of your Parliamentary Committee during the past year has consisted largely in dealing with important questions which have been before the Association for several years past, and in carrying out policies previously determined. The usual grist of new legislation, provincial and Dominion, has been dealt with by the Committee, and a number of measures which the Association has pressed for some time have been enacted as law.

Company Incorporation and Registration.

The stated case referred to the Supreme Court by the Dominion Government covering the disputed questions of jurisdiction between the provinces and the Dominion in respect to this subject was heard in February, the Association being represented by Mr. F. H. Chrysler, K.C., and Mr. Wegenast. The case of the John Deere Plow Company *v.* Agnew, one of the test cases, by supporting which the Association had designed to insure a determination of the issues in which the members were most vitally interested, was heard at the same time. In this latter case, the plaintiff, the John Deere Plow Company, had been operating under a Dominion charter, with head office at Winnipeg, and carrying on a general business in agricultural implements throughout the Western provinces. The company had applied for a license in the Province of British Columbia, but was refused because another company of a similar name, incorporated by one of the American States, had previously become registered in the Province. The position was, therefore, that by the operation of the provincial law, a company duly authorized by the Dominion Government to carry on trade throughout Canada was finally and absolutely excluded from the Province of British Columbia. The position which had been taken on behalf of the Association was that a Dominion charter should entitle a company to carry on business throughout Canada, without the necessity of licensing or registration, practically amounting to re-incorporation, in each of the provinces. The company sued upon a claim against a merchant in British Columbia who had refused to pay, pleading the incapacity of the company, by reason of the Provincial Act, to take any proceedings against him. The provincial court upheld this contention and the validity of the provincial Act which rendered the company impotent to bring the action. The Supreme Court of Canada, on appeal, held that the transaction out of which the claim had arisen did not show that the company had been actually carrying on business in the province, so that it was not necessary to decide the constitutionality of the provincial Act. As a matter of fact, the defendant had acted as the representative of the company under an ordinary form of exclusive territory contract. The goods supplied to him were to remain the property of the company until paid for; the defendant was to take lien notes in favor of the company; the proceeds of the goods, if paid to the defendant, were to be held in trust for the company; the defendant was to keep the goods insured by a policy in the name of the company and was to sell the goods at certain prices. The court having held that these circumstances did not constitute a carrying on of business within the very comprehensive terms of the Act, your Committee deemed it wise not to disturb the decision by encouraging an appeal. However, the same company had in contemplation a number of other actions by means of which to secure a determination of its status in the Province of British Columbia. One of these was a friendly action by one of the shareholders of the company to restrain the company by an injunction from carrying on business in the Province. The other was a claim against a customer in the Province in which the circumstances showed clearly a carrying on of business through a duly authorized representative. Both these actions have been brought and decided by the trial judge against the company. At the suggestion of your Committee, an application was made by the company for leave to appeal direct from the judgment of the trial judge to His Majesty's Privy Council, and this application has been allowed with a direction that the Attorneys-General of the Dominion and the four western provinces should be served with the order allowing the application and should be given leave to intervene. The cases should come on for hearing in the ordinary course in November, but it is possible that upon application of one or more of the provinces the hearing may be postponed until February. Your Committee are advised that the cases are regarded by the Privy Council as perhaps the most important constitutional cases that have come before that body from Canada. It is confidently expected that the result of the hearing will be the determination of the long outstanding issue between the provinces and the Dominion which has been a source of great difficulty to all companies engaged in manufacturing and commerce. Meanwhile the judgment of the Supreme Court upon the stated case above mentioned has not, up to the date of the writing of this report, been handed down. It is quite possible that the decision in this case when issued may afford a satisfactory solution, subject, of course, to an appeal to the Privy Council. Your Committee propose to continue their endeavors to protect the interest of members



MR. THOS. FINDLEY
Chairman Parliamentary Committe

As we spelt his name with an "a" in the last Convention issue, we are very glad that Mr. Findley allowed himself to be re-elected Chairman of the Parliamentary Committee in order to give us the gratification of spelling it with an "e." This determination to correct the spelling of the Editor is only one example of the persistence which has made him. Twenty-two years ago, at the age of twenty, he entered the employ of the Massey-Harris Company as a telegraph operator. Now he is Vice-President and Assistant General Manager. We mentioned this last year, but we like to repeat it, as an illustration of what persistence and ability will accomplish.

During the past year the Parliamentary Committee had some hard nuts to crack. There are some left over for this year, and others are ripening. Mr. Findley is a good man to handle the nut-crackers.

by giving the closest attention to these issues. The subject is as complicated as it is important, and the Committee bespeak the continued support and confidence of the Association in dealing with it.

In the meantime, the Legal Department is uniformly advising companies, whether operating under Dominion or provincial charters, to refrain from registering in any province, unless there are special circumstances demanding immediate action. In particular, it is unwise for provincial companies to take out licenses on the basis of their provincial charters. The course suggested, where action is necessary on the part of a provincial company, is to take out a Dominion charter and to defer, as far as possible, the obtaining of provincial licenses until the cases now before the courts are finally decided. The Department is in a particularly advantageous position to advise members in all matters of company organization and administration, and to undertake any work connected therewith. It is part of the regular work of the Department to procure charters for companies newly organizing or reorganizing, and to take out licenses where it is deemed necessary. A considerable amount of this work has been done during the past year, and members are invited to make full use of the facilities of the Department for the coming year, either directly or through their own solicitors. It may be added that, in a large number of cases which regularly come before the Department, it is found that considerable inconvenience and expense could have been saved by earlier consultation.



MR. F. W. WEGENAST
Secretary of the Legal Department

Bulk Sales Legislation.

Your Committee have continued their efforts to obtain Bulk Sales Acts in those provinces that have not already enacted such legislation. The Provinces of Nova Scotia, Quebec, Manitoba and British Columbia have now such Acts in various degrees of successful operation. Efforts to secure the adoption of such an Act by the Ontario Legislature at its last session were met with great opposition from certain quarters. Your Committee hope that this opposition may be overcome before the next session. It is hoped also that Acts may be secured in some of the remaining provinces.

Bankruptcy System.

There has been renewed discussion during the past year amongst commercial bodies regarding the proposal of a bankruptcy system for the Dominion. Your Committee has given some consideration to the matter and in a report which was adopted by the Executive Council at its May meeting, approved of the general principle of a bankruptcy measure without committing itself in respect to details. It appears that amongst the civilized countries of the world, Canada stands in the unique position, with a qualified exception in favor of China and Japan, of having no bankruptcy law. The older Bankruptcy Acts of Canada, the last of which was repealed in 1880, were enacted during a period when the adaptation of bankruptcy legislation to modern commercial relations was more or less a matter of experiment. The unpopularity of the legislation in certain quarters was mainly due to defects which have since been satisfactorily remedied in the systems of other countries. The present Act of England, for instance, must undoubtedly be regarded as being on the whole a very satisfactory piece of legislation.

In order to ascertain the views of the members of the Association upon the broader phases of the proposal, a summary of an article, by Mr. James Bicknell, K.C., was published in Industrial Canada, and circulars sent to the members calling their attention to the article, and asking for an expression of views. Previous to the sending out of the circular, a resolution was received from the Winnipeg Branch, opposing the principle of a bankruptcy system, and favoring the present system of handling insolvent estates under the provincial laws. It is perhaps incidental to the practical difficulty of securing representation from all parts of Canada at each meeting of the Executive Council that the views of the Winnipeg Branch were not presented at the May meeting of the Executive Council. Your Committee would suggest that in view of the expression of the Manitoba Branch some further direction be given by this meeting to guide your Committee during the coming year. In the meantime, your Committee desire to add that the letters received from members of the Association in response to the circular above mentioned have uniformly and without exception endorsed the recommendation of your Committee approved by the Executive Council and have also given suggestions which your Committee believe will be of value in dealing with any bankruptcy legislation which may be introduced.

Commercial Courts.

The Committee also considered a resolution of the Montreal Branch favoring the establishment of a system of Commercial Courts to deal with claims and disputes in connection with commercial transactions, particularly those of an interprovincial character. Such courts are in existence in different countries of the world; and in the United States, the federal courts have jurisdiction over matters of inter-state commerce. In this country, with the exception of the Exchequer Court, and such bodies as the Board of Railway Commissioners, judicial machinery is entirely under the control of the provinces, though, under the terms of the British North America Act, the Parliament of Canada is vested with power to establish "additional courts for the better administration of the laws of Canada." The question was considered at some length whether it was not possible to establish a system of commercial courts in connection with the courts required for the administration of a bankruptcy system. It was felt, however, that further consideration of the subject should be deferred pending the outcome of the agitation in favor of a bankruptcy system.

Conditional Sales Legislation—Alberta.

The Alberta Legislature at the last session adopted an amendment to the Conditional Sales Act of a type particularly unjust and oppressive to manufacturers and contrary to the most elementary of accepted principles of law and justice. The Act applies only to sales of farm machinery, and provides that no proviso or condition in any agreement, verbal or

written, shall be binding upon the purchaser of farm machinery, if the court or judge before whom such contract comes in question decides the proviso or condition to be unreasonable. The Act further provides that, notwithstanding anything contained in any agreement to the contrary, the vendor shall be responsible for all representations made by his agent or agents, and that "any and all persons conducting negotiations on behalf of vendor which terminate in an actual sale shall be deemed to be agents of the vendor." The Act further imports into every sale of farm machinery an express guarantee that the machine is made of good material, is properly constructed, both as to design and workmanship, is in good working order, will satisfactorily perform the work for which it is intended, is free from latent and other defects, and is in every way so designed and constructed, as with proper care and use to ensure reasonable durability. The remarkable character of the legislation will be appreciated without further comment. While none the less deploring that any Canadian legislature should have seen fit to place a measure of such anomalous and unjust character upon its statute books, your Committee believe that there may be some foundation for the suggestion that the legislation was inspired by the nature of some of the terms and conditions contained in agreements of sale employed by some manufacturers, and your Committee have considered the desirability of some action directed towards the adoption of standard forms of sale contract which would eliminate such terms as might be regarded as unfair and oppressive. We understand that the governments of some of the other provinces are being pressed to enact legislation of a character similar to that of Alberta, and it is hoped that an effort to meet the objections which have given rise to the agitation may prevent legislation by other provinces and possibly be the means of securing the repeal of the Alberta measure.

Uniformity of Laws.

Legislation of the character above mentioned is constantly emphasizing the importance of efforts in the direction of uniformity in the laws of the different provinces governing commercial transactions. In other federal countries, such as the United States, much of the restrictive legislation attempted by some of our provinces would be unconstitutional and invalid, except as to purely local trade. While the Canadian constitution gives more latitude to the local legislatures, it also gives more regulative control to the federal parliament and the continued abuse of provincial powers will ultimately render it necessary, in the interests of the commerce of the country, to invoke the paramount federal authority in general legislation, which would supersede the provincial Acts. Your Committee are taking advantage of every favorable opportunity to impress this view upon the authorities of the provinces.

Assessment Legislation.

As foreshadowed in the last annual report, your Committee took steps to present to the Committee of the Ontario Legislature the views of the Association upon this subject. A deputation, representing the Association, appeared before the legislative committee and presented a memorandum embodying the views endorsed at the last Annual Meeting favoring the substitution of increased taxes on unimproved lands for taxes of the nature of personalty and business taxes. In this position, your Committee are in accord with the bulk of public opinion, as evidenced in various ways during the past few years. We are unable to report any immediate results from the representations of the Ontario Legislative Committee, the matter having been laid over for further consideration.

Your Committee beg to propose and recommend that the Association should, without allying itself with any body or movement in support of any particular method of taxation, support the general principle already laid down, and, as occasion may arise, endeavor to promote the adoption of this principle in the taxation legislation of the different provinces.

Immigration Regulations.

Your Committee desire to renew their protest against the unjust discrimination in the immigration regulations of the Dominion Government in favor of agricultural and other laborers and against industrial laborers of other classes. Persons entering Canada with the express intention of taking employment in any manufacturing industry are required to have in their possession at the time of entry a certain sum of money, while no such qualification is required from agricultural laborers and others. The injustice of the requirement has been intensified by the actions of some of the immigration officials in permitting intimidation and interference on the part of agents of labor unions. It was found at some of the ports of entry representatives of the labor unions were allowed access to immigrants on landing, while a similar privilege was denied to employers in whose service the immigrants were to be engaged; and immigrants legally qualified under the immigration regulations were being deported, on the ground that they were coming to supply the places of others who had "struck." Two particularly flagrant cases of this character were brought before the courts on habeas corpus proceedings, and your Committee are glad to report that, in both cases, the application was successful and the immigrants who had been ordered to be deported were allowed to proceed to their destinations.

Quebec Legislation.

The session of the Quebec Legislature was, as usual, productive of a number of bills affecting the interests of the manufacturers. The most important was that providing for the readjustment of the tax on commercial corporations. This tax has stood for years at one-eighth of one per cent. on the capital of a company up to a million dollars and one-twentieth of one per cent. on the capital over a million dollars, plus fifty dollars for each place of business in the cities of Quebec and Montreal, and twenty dollars for each place of business elsewhere. The Government bill provided for one-tenth of one per cent. on the whole paid-up capital, plus thirty dollars for each place of business in the cities of Quebec and Montreal, and fifteen dollars for each place of business elsewhere. In other words, the readjustment meant a reduction in taxation for all companies with a paid-up capital up to one and one-half million dollars, and an increase for companies with a capital over that amount. The net saving to members of the Association was estimated, on the revenue returns of 1912, at $50,000 a year. Vigorous opposition was registered to the increase in the case of the larger companies, but the Government maintained that it was a necessary step to the further reduction of the tax to have all the companies put on the same basis.

A bill to prevent the parties to a contract or deed of sale from selecting domicile for the purpose of any suits that might arise from such contracts, was defeated by a very close margin. This legislation will undoubtedly be brought forward again and will require to be carefully dealt with.

A proposal to make it unnecessary for non-residents of the province to give security for actions in cases arising under the Workmen's Compensation Act, was proposed and rejected.

A measure was adopted which authorized the establishment of a fire protection service in the country district, the chief aim being the organization and instruction of volunteer fire brigades in the smaller towns.

The report of the Commission appointed several years ago to revise and consolidate the Municipal Code, tabled its report and the same will come up for final action at the coming session. The draft code submitted provides again for

the taxation of machinery by municipalities, and the Montreal Branch is making representations to the Government to have this article amended.

Other Legislation.

Amongst the minor matters which your Committee dealt with and which will probably call for continued attention during the coming year were such measures as the Steam Boiler Act of Ontario calling for the inspection of boilers under construction. In this matter the Legal Department acted under the advice of the Engine and Thresher Section of the Association and secured large modifications of the Act as originally proposed. The Committee has taken up with the Government the matter of compelling the marking of imported paints and varnishes with reference to the Canadian standard measurements, the present practice having been found to operate unfairly against Canadian manufacturers. The proposed amendment of the Ontario Municipal Act, discussed at former meetings, to give corporations a vote upon municipal by-laws involving the expenditure of money, was finally enacted into law after considerable effort on the part of your Committee. The introduction in the Ontario Legislature of an eight-hour day Bill applicable to miners was made the occasion of a protest on behalf of the Association against the principle of restricting by law the freedom of employer and employee to adapt the terms of their employment to their mutual convenience. Assurances were received that the legislation adopted by the Government was based upon the special circumstances and conditions of employment in mines and not to be taken as implying any general approval of the principle of fixing an eight-hour-day by law.

All of which is respectfully submitted.

G. M. MURRAY,
General Secretary.

THOMAS FINDLEY,
Chairman.

F. W. WEGENAST.
Secretary Parliamentary Committee.

WORKMEN'S COMPENSATION

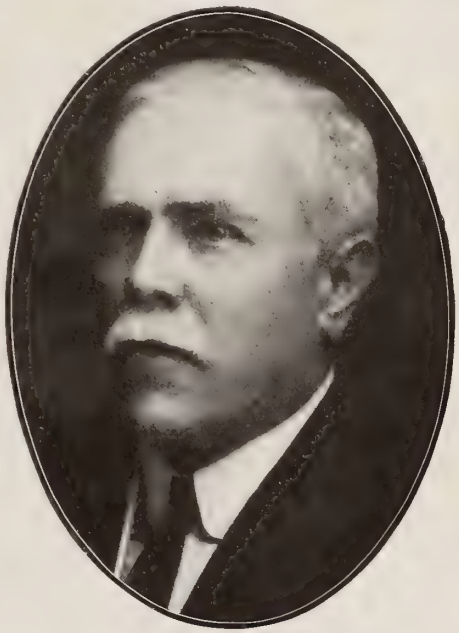
Your Special Committee upon Workmen's Compensation have been called upon during the past year to give a large amount of attention to this complicated and difficult subject. For the information of those members who may not have kept closely in touch with the work of the Committee it may be stated that while the immediate object of the Committee's attention has been the proposed system for the Province of Ontario, it has constantly kept in mind, as required under the terms of its appointment, the broader aspect of the subject from the aspect of the whole Dominion, and the influence which it is anticipated a model system in any one Province would have upon the remainder of the Provinces, and the Committee as at present constituted includes members of a number of Provinces. It may be found desirable if the Committee should be reappointed to make its membership still more comprehensive by having all the Provinces represented. The Committee is in a position to know that in some of the Provinces where Workmen's Compensation Acts have been passed employers are anything but satisfied with their operation. There is every reason also to anticipate agitation on the part of employees for amendment and revision of existing laws. The subject is of such obvious importance to employers not only on account of the direct operation, but also on account of the more indirect results and tendencies of such legislation that it is not necessary perhaps to say anything further upon this score. Your Committee would observe, however, that some difficulty has been experienced in securing from individual members the thought and consideration which the subject deserves, and which they will undoubtedly be called upon to give it later when their consideration may have much less effect in determining the character of the laws. While your Committee deeply appreciate the confidence which the Association has shown in trusting the handling of the subject so fully to them, they beg to remind the members that it is highly desirable that they should keep in touch with their legislative representatives upon the subject, and that for this purpose they should inform themselves as far as possible of the proposals and views advanced in their behalf by the Committee in order that there may be no action at cross purposes. This observation applies not only to the Province of Ontario, where the subject is immediately under consideration, but to all the other Provinces; for there is every reason to believe that the subject will receive very general consideration throughout the Dominion within the next few years.

There will be no harm in repeating in outline the concrete proposal which has been made to the Ontario Government, and which is the result of years of deliberation on the part of your Committee. It is proposed that the employers of the Province shall be divided into groups according to industries —our draft classification proposes forty-six groups—each group of employers being collectively liable for the compensation for injuries to workmen employed in the group. It is proposed that the necessary funds shall be collected by an annual assessment rate on each group, based upon the pay-roll, or the number of employees if thought desirable. The system is to be administered by a Government Commission, which is to adjust all claims by workmen or their dependents upon the funds. The system, as will be seen from this rough outline, would be simple and direct in its operation, and on a casual thought might appear to involve little ingenuity or difficulty. As a matter of fact, however, although practically every civilized country in the world has adopted some form of Workmen's Compensation Act, there are very few jurisdictions where this simple plan has been put into operation, the rest having by hasty and ill-advised experiments saddled themselves with systems which it is impossible to alter without serious economic disturbance. In England, for instance, and in a number of the Provinces of Canada Workmen's Compensation Acts of a certain type have given rise to a system of covering the employers' liability by insurance in private insurance companies, which, under a system such as that proposed by your Committee, would be entirely superfluous.

In the Province of Ontario during the past year the greater part of the work of your Committee has consisted in offsetting the efforts of the liability insurance companies to discredit the proposals of the Association and to induce the Ontario Commissioner, Sir William Meredith, to adopt an Act of the English type, which would open up a much larger field for private liability insurance in the Province. Space will not permit us to give an account of the actual work done by the Committee and the Legal Department in dealing with

these attacks, which were in the main unsuccessful, though they have no doubt had some influence in producing the very difficult situation with which your Committee is and has been confronted in the Province of Ontario.

The proposals of the Association had been worked out in some detail in the brief prepared by Mr. Wegenast and presented to the Commissioner, but they had not been drafted in the concrete form of an Act of the Legislature. Complying with the request of the Commissioner for the submission of a draft schedule of benefits and a draft scheme of classification of industries, the Legal Secretary, on the instructions of the Committee, submitted a draft of an Act embodying the proposition of the Association. When, shortly afterwards, the Commissioner's draft Act was brought down for public discussion before being submitted to the Legislature, many of its provisions were found to have been adopted from our draft Act, but combined with provisions adapted from the English Act, which is based on a principle entirely different from, and incompatible with, that underlying our proposal. Without attempting any description of the anomalous character of the measure resulting from this combination, it is desired merely to state that the scheme proposed by the Commissioner's draft Act is in the opinion of your Committee totally unworkable, apart altogether from the gross injustice which some of its provisions would impose upon employers if the Act could be operated. One instance of this is in the proposed schedule of benefits. Following investigation and the expert opinion developed through the experience of other countries, your Committee had proposed that the schedule of benefits in the case of death or total disability be in the form of a pension or periodical payment rather than a lump sum, though under such a system the average amount of compensation would be very much increased, and the maximum amount be limited only by the lifetime of the incapacitated workmen or dependent. Where such a pension system is adopted it is imperative that the annual amount should be kept within the most modest limits. In the one system on this continent which embodies such a pension system, that of the State of Washington, the payments were fixed at from $20 to $25 per month, according to the number of dependents. This would involve in many cases a total payment for the life period of from $10,000 to $15,000, and the average amount as computed by the actuaries of the Washington system would be $4,000. In view of the fact that the scale of wages on the Pacific Coast is on the whole about 50 per cent. higher than that in the East, it would not have been unreasonable to have proposed for the Province of Ontario a schedule on a lower scale. As a matter of fact the scale of the Washington system is the most generous in the world. Your Committee proposed in its draft schedule of benefits the same scale as that of the State of Washington with some slight increases, trusting to economical administration of the funds under a Government system and to active measures directed towards accident prevention to keep the premium rates within due bounds. To the astonishment of your Committee the Commissioner proposed a schedule of benefits with a minimum 25 per cent. higher than the schedule proposed by our draft Act, and with an indefinite maximum based on 55 per cent. of the wages of the employee, which might reach in individual cases an aggregate sum during the life period as high as $25,000 or even $50,000.



MR. P. W. ELLIS

P. W. Ellis & Co., Ltd., Chairman of the Workmen's Compensation Committee in 1912-13; re-elected for 1913-14.

To enlarge upon the biographical sketch of Mr. P. W. Ellis, published last year in the Convention issue, is unnecessary; it suffices to say that he is working harder than ever in public matters and in his own business. As chairman of the Toronto Hydro-Electric Commission, Mr. Ellis has had ample opportunty to study the employers' problems from the point of view of a man who helps to direct a great staff of workmen. In his own business he has acquired a more intimate and detailed knowledge of the same question. As Workmen's Compensation is approaching the critical point in Canada, the Association made no mistake in leaving Mr. Ellis at the helm.

The attitude of your Committee in dealing with the whole question has been one of the utmost frankness. Every effort has been made to avoid anything in the way of haggling over terms as if the matter were one for contention between opposing interests. As other bodies of employers were co-operating with and supporting ours, there was reason to expect a scheme more beneficial to workmen than anything that could possibly have been evolved by the more usual contentious methods. Your Committee are in a position to know that not only the large body of unorganized workmen, but those who appeared for the labor unions before the Commissioner, shared this view, and were more than satisfied with the proposal of your Committee placed before the Commissioner. It is of course not unnatural that, taking their cue from the increased scales proposed by the Commissioner, the representatives of the labor unions should now favor the Commissioner's schedules. The result is a situation from which the Association may very well stand aside as a non-participating, though very interested, spectator. No Government could, we are convinced, consider seriously the adoption of the Commissioner's schedules or his draft Act in their present form. It is proposed, while keeping the most careful watch over the interests of the Association, to await the action of the Government upon the Commissioner's report and draft. It is possible that very thorough and energetic action on the part of the Association may be necessary; but your Committee are hopeful that the Government will exercise the caution which the subject demands, and give to the representations of the Association the consideration to which the interests for which it stands, and the attitude which it has adopted, entitle it. Meanwhile your Committee will hold itself in readiness to give the Government every assistance in its power in dealing with the present situation. The principles for which the Association has contended, and in a large measure the concrete features of our proposal, have been adopted by the Commissioner. Because of the complex nature of the subject a defect in any one of a score of features of a concrete system may mean the difference between failure and success, and apart from the features of immediate interest to manufacturers we are anxious to have the system adopted a successful and a model one. The Legal Department of the Association has been engaged during a large part of the past year in making an industrial survey of the Province with a view to collecting the information necessary in dealing with the classification of industries of the proposed system. The information collected will be placed at the disposal of the Government, and the legal Department will be held in readiness to assist the Government in any manner consistent with the interest of our members.

In conclusion we desire to emphasize the importance of having the membership of the Association informed upon this subject. It is impossible within the compass of a report of this nature to do more than merely suggest some of the many phases of the subject requiring careful attention in the framing of a workmen's compensation system. Among them are the following:—

1. Should the obligation to provide compensation in any case be imposed as a direct liability upon individual employers? Should the following be individually liable:—(*a*) Employers in default in paying their premiums; (*b*) Employers refusing or neglecting to pay premiums; (*c*) Employers of any particular class of labor, *e.g.*, in agriculture, domestic service, retail or wholesale mercantile establishments, clerical work, casual work, etc.; (*d*) Particular classes of employers, *e.g.*, railway companies, telegraph companies, municipalities, large employers generally; (*e*) Specified individual employers, as for instance in Nova Scotia the Dominion Coal Company?

2. Shall any class of employers be excepted from the Act? Shall the following come under the Act:—Farmers, horticulturists, employers of domestic servants, menial servants, casual labor, retail mercantile establishments, wholesale mercantile establishments, employers of two or three or other limited number of employees, teaming, cartage, coal and wood yards, policemen and firemen, tailor shops, millinery and dressmaking shops, butcher shops, hand laundries, livery stables, hotels, restaurants, threshing gangs, baseball, lacrosse, etc., players, school teachers, clerks in banks, insurance offices, etc., railway news agents, mail clerks, postmen, postoffice employees, employees of Dominion Government?

3. Shall the compensation in case of death or total disability be in the form of a lump sum or periodical payments? If a lump sum on what shall it be based, upon a fixed schedule or upon previous earnings? Shall it be affected by the number or condition of the dependents, *e.g.*, shall a man with a large family receive more than a man with no family? If the compensation is in the form of periodical payments upon what shall it be based, upon a fixed schedule or upon previous earnings? Shall the amount be affected by the number and condition of the dependents? Shall the payments be for life or a limited number of years? (*a*) In case of adult dependents, (*b*) In case of infant dependents, (*c*) In case of remarriage of widow?

4. Shall the compensation in case of partial disability be in the form of a lump sum payment or periodical payments, *e.g.*, shall the man who has lost a finger or an arm receive a pension or a lump sum? If a lump sum, how shall the amount be calculated, upon a fixed schedule or upon the diminution of earning capacity? Shall provision be made for converting the lump sum, under circumstances, into periodical payments? If the compensation is in the form of periodical payments shall it be based upon a fixed schedule or upon diminution of earning capacity? Shall provision be made for commuting the periodical payments for a lump sum?

5. Shall there be any fixed limit or maximum of compensation? If so, and the compensation is in the form of periodical payments, shall the maximum be by way of (*a*) a total aggregate sum, (*b*) a total capitalized value, (*c*) a limited number of payments or period of time, (*d*) a limitation of the periodical amount, or (*e*) by confining the application of the Act to workmen receiving wages within a certain limit? If the limit is by way of a total aggregate sum shall the payments cease when this sum is exhausted, or shall the amount of each payment be reduced upon a calculation of the expectancy of life?

6. Shall compensation be paid for accident caused by (*a*) the carelessness of the employee, (*b*) the carelessness of another employee? If so, shall there be an action against the other employee? (*c*) disobedience of the employee, (*d*) disobedience of another employee. If so shall there be an action against the other employee? (*e*) gross negligence of employee, (*f*) gross negligence of another employee. If so shall there be an action against the other employee? (*g*) the employee intentionally for the purpose of obtaining compensation (*h*) the employee intentionally for any other reason, (*i*) the drunkenness of the employee, (*j*) pure accident, (*k*) act of God, lightning, storm, flood, etc.?

7. Shall the Act apply to industrial diseases? If so to what diseases? If so and there is individual liability, who shall be held subject to pay compensation: (*a*) the employer in whose service the disease was contracted, (*b*) the employer in whose service the disease was discovered, (*c*) the employer in whose service the disease incapacitates. If so and there is collective liability which class in the compensation funds shall meet the compensation payments: (*a*) the class in whose service the disease was contracted, (*b*) the class in whose service the disease was discovered, (*c*) the class in whose service the disease incapacitates?

8. How shall the Board to administer the Act be constituted? What shall be their jurisdiction and powers? How shall they be remunerated? Shall the Board finally adjudicate: (*a*) upon questions of fact, (*b*) upon questions of law arising out of the Act, (*c*) upon questions of law or fact arising outside the Act, (*d*) upon the interpretation of the Act, (*e*) upon the jurisdiction of the Board? Shall all claims be brought before the central Board or shall there be local tribunals?

9. Shall compensation be paid to dependents who reside in foreign jurisdictions: (*a*) In Canada outside Ontario, (*b*) in the British Empire, (*c*) in the United States, (*d*) in any other foreign country, (*e*) in jurisdictions which reciprocate? Shall compensation to dependents in foreign jurisdictions be on the same scale as that to dependents in Ontario?

10. Shall compensation be paid to a workman who is injured outside the Province of Ontario: (*a*) If the workman is domiciled in Ontario, (*b*) if the workman is usually employed in Ontario, (*c*) if the employer has paid his premium, (*d*) if the employer's chief place of business is in Ontario, (*e*) if the employee is connected with a branch of the employers business outside Ontario?

11. How shall the funds be raised? What contribution or proportion shall be paid by: (*a*) Employers, (*b*) employees, (*c*) the Government?

12. How shall the funds for compensation be collected? Through the municipal taxation machinery or by an independent organization under the Board? What provision shall be made for enforcing collections?

13. How shall premium rates be collected? Shall they be raised upon the requirements from year to year or shall reserves be set up to cover payments for future years? If reserves are established, by what method? By an annual percentage margin or by an estimated capitalization of each claim? If the current cost plan of assessment is adopted shall exceptions be made in the case of particular industries or employers, *e.g.*, building trade or foreign employers?

Your Committee had to deal with these and many other questions in the course of formulating their proposals. The results of their work and the reasons for their decisions are contained in a variety of publications which have been issued from time to time and which may be had on application to the Legal Department. The full proceedings before the Ontario Commissioner, including the representations of the Asso-

ciation, are contained in blue books of the Ontario Government which may also be had on application.

Members in all the provinces are urged in their own interest to avail themselves of this material and to give the Committee their support and the benefit of their views at this time when the laws are in their formative stage.

The meeting is reminded also that it is desirable that the question of reappointment of the Committee should be considered and dealt with.

All of which is respectfully submitted.

G. M. MURRAY, *General Secretary.*

P. W. ELLIS, *Chairman.*

F. W. WEGENAST, *Secretary Workmen's Compensation Committee.*

TRANSPORTATION

The part taken by the Association in recent years in transportation questions including express, telegraph and telephone rates and practices, has become well known. The department is constantly being consulted by members in all parts of the Dominion; our relationship with the railways is as it should be; meetings with their representatives are frequently held for the purpose of considering suggested changes in transportation conditions. This is especially the case in dealing with changes in the Canadian freight classification, conditions of carriage, etc. In this way hearings before the Board of Railway Commissioners, with the expense and inconveniences attendant thereupon, are avoided.

Through the attendance of the Manager of the department at all important traffic sittings of the Board of Railway Commissioners your Committee is kept in touch with the work of that body. This is considered necessary, as every order made establishes a precedent of some kind which may be far-reaching in effect.

Another reason for such attendance is the fact that the Board so far has not formulated for the guidance of shippers and carriers its interpretation of the various provisions of the Railway Act dealing with traffic. These provisions include the filing, posting and application of tariffs, as well as questions of a character general in their application which frequently arise. The promulgation of such would be of material assistance to shippers and carriers, and, it is believed, to the Board; it is therefore to be hoped it will be undertaken at an early date.

The following matters came before your Committee and the Department during the past year:—

C—*Cartage Service Freight.*

1. Increase in rates.
2. Delivery limits.
3. Discontinuance of service by the railways east of Port Arthur.
4. Customs cartage charges to examining warehouses (import traffic).

Complaints—Delays to freight in transit and in terminals.

Car Supply—Including new equipment.

Car Service Rules—(Revision).

Car Service Charges—(Increase in rates).

Claims—

1. For overcharge.
2. For pilferage and for loss and damage in transit.

D—*Demurrage*—

1. Average plan.
2. Reciprocal or penalties for delays in transit or terminals.

Dunnage—Allowances for—on articles requiring such.

E—*Embargoes*—Against freight traffic.

Express—

1. Classification.
2. Conditions of carriage.
3. Delivery limits.
4. Rates.
5. Restricted hours of wagon service.
6. Extra charge for manifests on import and export shipments.

F—*Freight Classification*—

1. Proposed general revision carload minimums of the Canadian Freight Classification.
2. Fixing carload minimums for light and bulky articles upon the cubical, instead of the carrying capacity of equipment.
3. Proposed Rule 20—Regulations in respect to wooden covers on pails.
4. Supplement 5 to Classification 15 embraced in Classification 16, effective March 1, 1913, and now in effect.
5. Supplements 1 and 2 to Classification 16—(Supplement 1 effective August 20, 2 still under consideration).
6. Fixing weights for transportation of carriages.
7. Revision of Rule 2 of conditions of carriage—mixed carloads.
8. Applications for revision of and consideration of changes in the ratings on—acetylene gas; agricultural implements; apparatus, heating and ventilating; automobiles; axle grease; baskets, laundry; billiard tables and supplies; blacksmiths' blowers; boats and canoes; boiler pipe covering, asbestos; bridge material; cars, dump, hand and logging; chemical closets; cobblers' outfits; concrete machinery; cooked cereals; cork for insulating purposes; cyanamid (lime nitrogen); empties returned; fertilizer, n.o.s.; fire-fighting apparatus, namely—engines, ladders, wagons, hose, etc.; fish, partially cured; furs; glass wind shields; glycerine; grates and fronts; grease, n.o.s.; guide rails (elevator); hatchets; hogs (dressed); homogenized milk; houses, portable; iron conduit fittings; lemonade and julep straws; metal lath; motorcycles; muriate of potash; musical instruments; non-flexible conduit; oxygen gas; paper, cardboard, etc.; paper boxes, cannisters and wrappers; paraffine wax; peanut butter; phosphate; plow shares; pneumatic tires; punches (power); railway equipment; roofers' supplies; sheet tin; shoe dressings; show cases; soda water fountains; steam shovels; stone; tallow; thermo bottles; thresher tanks and gasoline engines; tin and tinware; transmission machinery; vehicles; wardrobes; washing and wringing machines; water-closet tanks; wire fencing.

In some cases advances proposed by the railways were objected to and withdrawn; in others the revision and new ratings asked for were granted in whole or in part. All of these matters involved a large amount of correspondence with interested members, etc.

Freight Rates—

1. Anthracite and bituminous coal.
2. Engines and threshers, mixed carloads.
3. Enquiry into freight rates in general west of Port Arthur and Fort William.
4. International freight rates east of Port Arthur and Fort William.
5. Through joint tariffs—publication of.
6. Lumber, from Southern United States to points in Eastern Canada.
7. Regina Rate Case.
8. Vancouver Rate Case.
9. Lumber, from B. C. Mountain territory to Manitoba and Saskatchewan.
10. Pacific Coast class and commodity rates
11. Application of rates to Newfoundland.
12. Milling in transit.
13. Ocean rates, export and import.
14. Brick.
15. Grain rates in the West.

G—*Good Roads.*

H—*Heated Car Service*—less than carload shipments of perishable freight.

L—*Live Stock Contract.*

Loading L.C.L. Shipments of fresh meats in refrigerator cars on private sidings.

M—*Milling-in-Transit.*

O—*Ocean Rates.*

P—*Parcels Post.*

Pilferages (claims for).

Porterage—Port of Montreal.

R—*Railway Act* (amendments to).

Railway Equipment—Automobile Cars.

Regulations for so-called dangerous articles other than explosives.

S—*Switching Service*—

1. Interswitching, proposed change in Board's order.
2. Local Switching—revision of rates.

Steamship Service—

1. Between Canadian, Atlantic and Pacific Coast via Panama Canal.
2. Between Eastern Canada and the Argentine.
3. Between Eastern Canada and New Zealand.

Settlement of Claims.

Stop-over Charges on Lumber.

Storage Warehouse—Increase in rates in Eastern Canada.

Storage—Free at head of the lakes on through Western traffic.

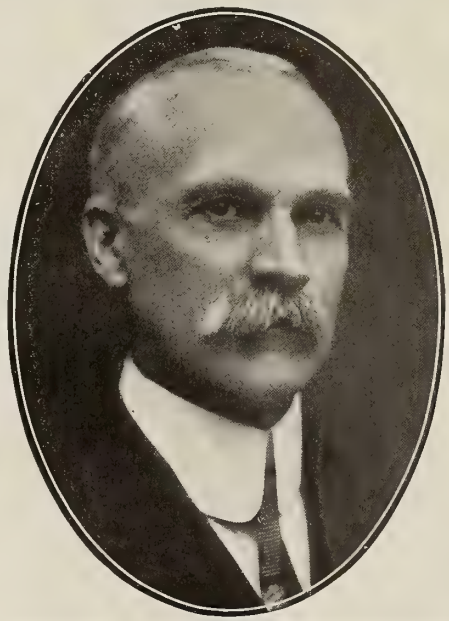
Siding Agreements and Installation of Private Sidings.

T—*Telegraph Enquiry*—Rates, contracts and other forms.

Telephone Service—Miscellaneous.

Terminal Facilities—General.

W—*Weighing Carload Traffic*—Allowance from track scale weights.



MR. S. R. PARSONS

British American Oil Co., Ltd., Chairman of the Transportation Committee in 1912-1913; re-elected 1913-1914.

For the third year in succession Mr. S. R. Parsons, of the British-American Oil Co., Ltd., Toronto, has been re-elected Chairman of the Transportation Committee of the Association. The work of this committee, in view of the great development of Canadian transportation systems, is unusually important, and makes great demands upon the time and energy of its Chairman and members. In the last Convention issue of INDUSTRIAL CANADA we published a sketch of Mr. Parsons' business career.

Having culminated his successes by becoming President of the British-American Oil Company and Chairman of the Ontario Board of Directors of the Canadian Fire Insurance Company of Winnipeg, he possesses the rich experience and good judgment which are invaluable in the sessions of the Transportation Committee. Those who compare this picture of Mr. Parsons with that published in the last Convention number will notice a difference. A man is as old as he feels. Then off with the beard. The harder he works the younger he grows.

Freight Service.

In dealing with the various questions your Committee has constantly borne in mind the service which the railways are expected to furnish, and which has been so unsatisfactory during the past year or two.

Application was made to the Railway Commission for an order directing penalties generally known as

Reciprocal Demurrage.

to be automatically applied against railways for failure to receive, carry and deliver freight within a reasonable time as required under the Railway Act; such system to require the railways, under penalty, to place cars for loading within forty-eight hours after ordered; to lift cars within twenty-four hours after notification of loading, and to place cars for delivery at destination within forty-eight hours after arrival; the penalties to be automatically applied and to be similar to those which the railways are authorized to charge shippers and consignees for delay in loading and unloading cars.

The Board heard us and others in support of the foregoing in June last. Judgment was reserved.

At the same hearing the Commission was asked for an order directing an extension of the Canadian Car Service Rules so as to provide for what is known as the

Average Demurrage Plan.

This plan is as follows:—

"When a shipper or receiver enters into the following agreement the charge for detention to cars shall be in accordance with the rule providing for the penalty to be charged as contained in the rules which have been approved by the Board. The charge on all cars held for loading or unloading by such shipper or receiver shall be computed on the basis of the average time of detention to all such cars released during each calendar month. Such average detention to be computed as follows:—

"A—A credit of one day will be allowed for each car released within the first 24 hours of free time. A debit of one day will be charged for each 24 hours or fraction thereof that a car is detained beyond the first 48 hours of free time. In no case shall more than one day's credit be allowed on any one car, and in no case shall more than five (5) days' credit be applied in cancellation of debits accruing on any one car, making a minimum of seven (7) days that any car may be held free; this to include Sundays and holidays.

"Credits and debits shall be computed (as under the straight demurrage rules), exclusive of Sundays and holidays, up to and including the fifth day of the debit period; thereafter a charge for detention shall be made of $1 per car per day or fraction thereof for each additional day of detention, to include Sundays and holidays.

"B—At the end of the calendar month the total number of days credited will be deducted from the total number of days debited, and $1 per day charged for the remainder. If the credits equal or exceed the debits no charge will be made for the detention of the cars, and no payment will be made

to shippers or receivers on account of such excess of credits, nor shall the credits in excess of the debits of any one month be considered in computing the average detention for another month.

"C—A shipper or receiver who elects to take advantage of this average agreement shall not be entitled to concellation or refund of demurrage charges under Rules 6 and 7.

"D—A shipper or receiver who elects to take advantage of this average agreement may be required to give sufficient security to the carrier for the payment of the balance against him at the end of each month.

"Agreement.

"To the Railway Company:

"In accordance with the terms of the Average Demurrage Rule contained within the Canadian Car Service Rules, approved by the Board of Railway Commissioners for Canada, and reading as follows:—

"I (or we) do expressly agree with the above-named railroad company that I (or we) will make prompt payment of all demurrage charges accruing in accordance with such rule during the continuance of this agreement on cars held for loading or unloading by me (or us), or on my (or our) account at .....station of the above-named railroad company. This agreement is to take effect .....191.., and to continue until terminated by thirty days' written notice to the railroad company.

.....

"Approved and accepted by and on behalf of the above-named railroad company by .....

"Some of the reasons advanced in support thereof are:—

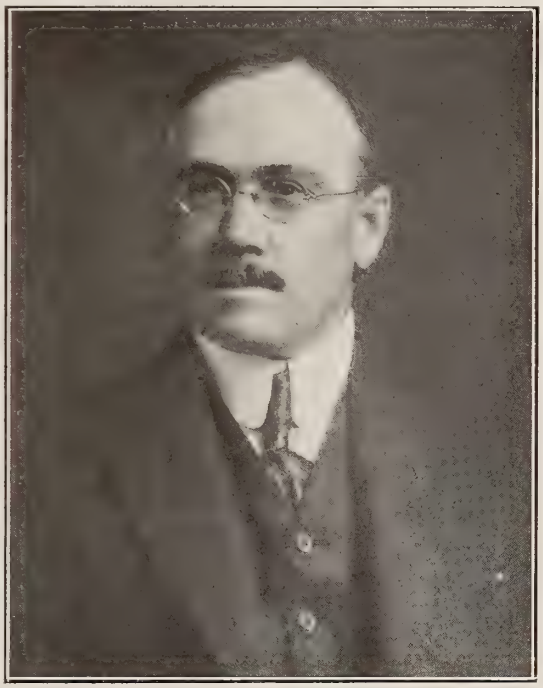
"1. It means the more rapid placing of cars for loading or unloading, thus effecting a saving in the cost of handling by the railways.

"2. Cars will be made empty faster and will be placed at the disposal of the carriers earlier, and not only the receiver who takes an interest in releasing his cars, but every shipper will be benefited.

"3. It will remove the friction which frequently arises between the carriers and the receivers in respect to weather interference and bunching in transit.

"4. Its adoption will, we believe to some extent at least, overcome the complaints which are constantly being made to the Board of failure on the part of the carriers to furnish the necessary equipment without delay for the carrying and delivering of all traffic offered.

"5. It is optional; a shipper or receiver not interested will still have the present rules."



MR. J. E. WALSH
Manager Transportation Department

Freight Cartage Service.

Although the Commission allowed the railways to increase their tonnage rate from 2 to 2½ cents per 100 lbs. in January last, the latter have decided to discontinue the service at all points in Eastern Canada on October 1st. It was discontinued in the West in April, 1912. Efforts are being made to secure a continuance of the service—temporarily, if not permanently—so as to enable all concerned to meet the changed conditions.

Increase in Car Service Charges.

The railways were allowed by the Railway Commission to increase their toll from $1 per car per day to $2 for the first day and $3 for each succeeding day cars were detained beyond the free time. They stated in support of their application that if permitted to do this there would be no complaints in regard to delay in placing cars after arrival at destination, and very few complaints of shortage of cars for shippers.

Although strong protests were filed at the hearing, which was specially granted by the Board, and which took place before the shippers had had a proper opportunity to prepare their case, the application was granted as an experiment, to remain in force to April 1st, 1913.

Notwithstanding these assurances and undertakings the service was as bad, if not worse than in previous years, and this was proven and admitted by the railways at a hearing before the Commission in June last. It was also shown that the shippers were not responsible for congestion and delays to anything like the extent represented by the railways, but rather that the latter, through lack of foresight and other causes, were by far the greatest sinners.

It is the opinion of your Committee that some of these difficulties will be overcome if the average demurrage plan is adopted.

Car Service Rules.

Whilst the present rules have stood the test of reasonableness, and we believe have been administered liberally by the Canadian Car Service Bureau, as intended and directed by the Railway Commission when approving them, there are some things which are not sufficiently clear. It is, therefore, expected that a revision will be undertaken at an early date.

Embargoes Against Freight Traffic.

The numerous embargoes which the railways from time to time placed against freight during the past year were the cause of serious delays and loss. These applied to their lines as well as their connections.

The Railway Commission have directed that all embargoes must be promptly reported to them. Whether any action is taken by that body to ascertain the cause of the trouble your Committee is unable to say. No information is given out to the public as to who is responsible, or whether it is considered shippers or receivers of freight contribute thereto. Such information, it is believed, would be of assistance in guarding against them in the future.

Delays to Freight in Transit and Terminals.

The blocking of terminals is largely the cause of these delays. Thousands of complaints have been filed with the Railway Commission, some of them considerably over a year ago. An investigation was suggested. So far your Committee has only received a copy of an interim report made by the Railway Commission's Operating Department.

This report contains certain information in respect to increased equipment. This is good as far as it goes, but it is not an answer to the complaints. What we want to know is who is to blame for the condition of affairs complained of, and it is to be hoped that the Commission will find out and place the responsibility where it belongs.

It is believed that the appeals to the Commission have been beneficial; in fact active steps have been taken by two

of the principal railways to systematize the handling of less than carload traffic in order that it may be cared for with the least possible delay.

Allowances for Dunnage and from Track Scale Weights.

This matter is still in the hands of the Board of Railway Commissioners. At a hearing in March last the railways offered 500 lbs. as a maximum allowance for dunnage, confined to the articles now covered in their tariffs. They also contended that the allowance for variation in tare of cars, etc., should be left to the discretion of their weighmen. Neither suggestion was accepted.

Both of these questions have since been ruled upon by the Interstate Commerce Commission along the lines of our representations to the Canadian Board.

Express Matters—Rates in the West.

The Railway Commission, after a thorough investigation undertaken shortly after the present Chairman was appointed, made an order effective July 15th, 1913, reducing rates west of and including Sudbury, Ont., approximately 20 per cent. This varies somewhat. The reduction is based on an analysis of the actual business done on a certain day, worked out more or less scientifically. The cost of conducting the business of the companies, and not the capitalization, was the determining factor in fixing the rates ordered.

Delivery Limits.

Generally speaking, the pick-up and delivery limits fixed by the Commission are satisfactory. In a few cases slight changes have been asked and granted in so far as it has been possible to do so.

Rates in the United States.

The Interstate Commerce Commission have, after a most exhaustive investigation, ordered sweeping reductions in rates and improvements in the conditions of carriage. Just what effect these will have on rates in Canada is not yet known. The matter is receiving attention.

Freight Classification.

The Classification fixes the rates charged. The Railway Act provides: "That no goods shall be removed from a lower to a higher class until such notice as the Board determines has been given in *The Canada Gazette*."

The Commission see that the Department is furnished with a copy of all changes filed by the railways, and interested members are immediately notified. The list of articles (see index) dealt with during the past year indicates the changes which are constantly being made.

Proposed General Revision Minimum Carload Weights —Canadian Classification.

Although the railways submitted their proposition to the Commission over a year ago nothing definite has transpired. Your Committee advised the railways through the Manager of the Department, that it was prepared to meet them on the subject provided they withdrew their application before the Commission.

Similar action is recommended to your incoming Committee.

Carload Minimums—Light and Bulky Goods.

A number of meetings were held with the railways to try and fix carload minimums for light and bulky goods based on the cubical instead of the carrying capacity of equipment. At the last moment some of the railways objected, claiming their revenue would be reduced.

As the question of limiting the height of cars is involved, the Railway Commission will deal with the whole matter shortly.

Mixed Carloads—Rule 2 of the Classification.

The two applications—one for an extension so as to permit of the same mixing privileges west of Port Arthur as exist east thereof, and the other from certain Western jobbers asking for a curtailment of the mixing privilege and increase in carload minimums—referred to in the last Annual Report have not yet been disposed of by the Commission.

Freight Rates West of the Lakes.

The Commission have held a number of lengthy sittings, at which thousands of exhibits were submitted on both sides. Some of the exhibits put in by the Canadian Pacific Railway were intended to show that when the mixing privilege was taken into consideration transportation conditions were more favorable than those in contiguous United States territory.

Certain theories for rate-making were submitted by Dominion Government counsel engaged to assist the Commission in the enquiry. Counsel for the Provinces of Saskatchewan and Alberta demonstrated that rates west of the lakes were higher than in the east.

In fact so much material of a general character has been put in that if the Commission undertake to review it months will elapse before a decision may be expected.

The tonnage directly affected is comparatively small, as the bulk of it moves under commodity tariffs. At the same time the fixing of rates by order may be far-reaching especially as there are so many conditions to be taken into consideration. This whole matter is much involved, but it would appear to your Committee that the evidence submitted is sufficient to entitle the West to a complete revision of rates, and it is expected that the Commission will lay down some definite plan of procedure at the next hearing which will insure an early decision.

The Vancouver rate case, as previously reported, was made a part of this case.

Regina Rates Case.

The recent complaint to the Commission that the railways had not, in issuing their tariffs from the head of the lakes, complied with the original order has been refused in a lengthy judgment covering fourteen pages. The Board do not say that there is no merit in the complaint, but rather the evidence was not sufficiently clear to warrant a change in its previous finding, which was that the railways had complied with the original order.

There is still much difference of opinion. Whatever disposition is made of the general enquiry will no doubt settle this case.

Rates on Lumber from Southern States to Eastern Canada.

The increased rates proposed and suspended by the Interstate Commerce Commission were after two lengthy hearings withdrawn by the railways. Protests were filed with both the Canadian and Interstate Commissions on behalf of interested members.

Another adjustment is on foot, but so far the railways have not submitted their proposition, which has been promised. The individual complaints of members to the Canadian Railway Commission are still being held in abeyance.

Pacific Coast Class and Commodity Rates.

A new Transcontinental Tariff (5-G) went into effect on August 6th. The rates therein have been readjusted to conform with the changes which went into effect in contiguous United States territory a short time ago, upon which rates from Eastern Canada are based, and which our Board of Railway Commissioners declared proper.

The revision in the United States, which was the result of many complaints and lengthy litigation, was finally approved by the Interstate Commerce Commission.

Ocean Rates.

Some members advised your Committee that unless a check was placed upon the constantly-rising ocean rates they would be obliged to discontinue their foreign business. After some correspondence suggestions were made to the Department of Trade and Commerce that there should be an immediate investigation, especially of the subsidized lines. Your Committee with the approval of the Executive Council, placed the views of the Association before the Government in the form of the following resolution:

"Resolved, that the Canadian Manufacturers Association urge upon the Government the immediate appointment of a Commission for the purpose of investigating the excessive increases in ocean rates, both import and export; and that action be taken looking towards an international conference composed of representatives from all maritime nations concerned with a view to establishing a permanent Commission with power to enquire into such matters and determine what action is necessary to overcome the combinations and arrangements between steamship lines to enhance rates unduly, which apparently now exist."

Representations have also been made by other bodies. The Government, no doubt, in response to the general outcry, appointed Mr. H. L. Drayton, Chairman of the Board of Railway Commissioners, to make a report on the question, and he is now in England for that purpose. Just what will be the outcome of his investigations remains to be seen.

Your incoming Committee will have an opportunity to deal with the question and take such further action as may by it be considered necessary.

Freight Rates in General.

A number of other rates questions and problems are mentioned in the index, but as they are either of an individual character or are not yet disposed of, it is unnecessary in this report to go into details in regard to them.

Good Roads.

Some information has been collected for future reference, and editorials and articles have appeared in INDUSTRIAL CANADA. Beyond this no action has been taken.

Heated Car Service—Less than Carload Shipments.

The demand for such service for less than carload shipments of perishables is increasing. Representations have been made to the Commission, but with one exception—namely, for shipments of fruit and vegetables, subject to certain restrictions, they have refused to order the service except where it was established and maintained voluntarily by the carriers until recently.

Live Stock Contract.

This contract has not yet been finally disposed of. As the Committee in charge could not agree with the railways' representatives upon the conditions limiting the latters' liability the Commission were asked to intervene. A decision is expected at an early date.

It should be mentioned that an agreement was reached on practically all the other conditions.

Parcels Post.

Your Committee is pleased to report that there is a probability of some action being taken before long to establish a service which will place Canada on a parity with all other civilized nations. Legislation to that effect was enacted at the last session of Parliament. The working out of the system is with the Honorable the Postmaster-General.

So far no information of a definite character has been given out, although it has been stated that the service will be somewhat similar to the system in the United States. This service, in order to be effective, should not be limited or restricted to any particular area. It must be as comprehensive as the service of the countries who afford, with the co-operation of our Government, an opportunity to do business in Canada under conditions not open to Canadians.

It will be remembered that the Association has for some years past urged the establishment of this service.

Railway Act—(Amendments to).

Your Committee, with the approval of the Executive Council, has recommended a number of amendments to the Act intended to afford further protection in respect to freight rates, capitalization and the jurisdiction of the Board of Railway Commissioners.

Regulations for So-called Dangerous Articles Other Than Explosives.

The objectionable conditions in these proposed regulations to which interested members called attention have, with one or two exceptions, been withdrawn after a number of conferences with the railway representatives. So far, however, they have not been submitted to the Railway Commission for approval. When this is done copies will be furnished us so that the special committee will have an opportunity to take such further action as may be found necessary.

Switching Service—Interswitching.

The order made by the Railway Commission in 1908 on the representations of this Association, directing the railways subject to their jurisdiction to interswitch traffic under conditions which would enable a shipper to ship from, or a receiver to receive his freight at, the point nearest and most convenient to him is one of the most important yet made by the Board.

It has frequently been attacked by the railways, but so far there has been no change in respect to traffic to or from private sidings. Recently the railways decided to disregard the order on traffic loaded upon or consigned for delivery on the team tracks of other than the long haul carrier. The Commission have been advised and evidence submitted showing that until recently the same facilities were afforded traffic handled to and from team tracks as to and from private sidings. The Board in February last suggested a revision of the original order allowing the delivering carrier an increased toll, the increase to be paid by the long-haul carrier. This the railways objected to; in fact they took the opportunity to again attack the whole order, and as a result no definite conclusion was arrived at.

The Commission recently sent out a circular directing the carriers to submit their position in writing on the whole question, both as to practices and rates.

It is not expected that the Board will make any serious change in the original order in so far as it applies to the public.

Local Switching.

The railways increased their switching rates at a great many points east of Port Arthur effective March 25th last. No objections were taken thereto except in a few cases, as it was represented that the terminal service would be improved thereby.

Steamship Services.

There have been no recent developments in regard to a steamship service between eastern Canadian Atlantic ports and the Pacific Coast via the Panama Canal. The same applies to the service between Eastern Canada and the Argentine.

The service between Canada and New Zealand has not been satisfactory of late, and the attention of the Department of Trade and Commerce has been called to same.

All of these matters will receive the attention of your incoming Committee.

Settlement of Claims—Overcharge Claims.

Although there has been a marked improvement of late years in the settlement of claims, there are still many complaints of delay, and steps are being taken toward better conditions. The Railway Commission have been asked to make a ruling—"that in the settlement of an overcharge claim (by which is meant the amount collected on a shipment in excess of the legally published rate) the claimant is entitled to interest thereon at the rate of 6 per cent. per annum from the date of the improper collection."

Pilferage and Loss and Damage Claims.

As regards the latter, steps are to be taken during the coming year looking towards a reduction of these claims.

Storage Warehouse.

These rates were materially increased during the past year. No objection was taken thereto, as it was the opinion that the higher rates might tend to reduce the use of freight sheds for storage purposes and the congestion and delay caused thereby.

Free Storage at the Head of the Lakes.

Although the Boards of Trade of Fort William and Port Arthur filed a complaint against the carriers granting free storage at the head of the lakes on through Western traffic, it has not been pressed. These complainants consider they are being discriminated against, although the contention has not yet been established before the Board of Railway Commissioners.

A similar complaint of the Duluth Board of Trade has been disposed of by the Interstate Commerce Commission as follows:—"It is not improbable that these privileges may result in a preference to merchants in other communities, and may, therefore, put the Duluth merchant at a relative disadvantage, but it is one of the class distriminations which arise out of the practices of carriers that cannot be considered as undue. It is one of the means that carriers may lawfully adopt in their competition with one another to secure traffic."

Telegraph Enquiry—Rates and Contract Forms.

Your last year's Committee reported in this matter as follows:—"This enquiry, although considerably delayed, has been practically concluded, and it is hoped will be disposed of satisfactorily without much further delay."

Since then some further argument has been presented and all parties notified by the Commission to file written briefs.

The enquiry arose out of an application of the companies to the Commission in 1910 to approve of the rates and forms used by them in transmitting and receiving messages.

Terminal Facilities.

At the last hearing before the Railway Commission in regard to delays in transit and terminals it was shown by the railways that large expenditures had been undertaken by them to increase their facilities so as to provide for the constantly expanding business of the country. There is no doubt but that the lack of them was the chief source of the thousands of complaints received during the past year or two.

Weighing Carload Traffic—Allowances from Track Scale Weights.

This question has not yet been disposed of. Meantime the allowances which the railways sought to discontinue in 1911 are still being made. Whether or not there will be a specific allowance as at present, or, as suggested by the railways, their weighmen will use their discretion, is to be decided by the Commission shortly.

The Interstate Commerce Commission, after an exhaustive investigation of alleged irregularities and discrepancies in the weighing of freight, in a recent opinion said:—"No workable rule has been suggested; on the whole there seems to be among shippers very little objections to an allowance of 500 lbs., and we think this may be fairly regarded as reasonable, the allowance to be confined to the commodities covered by existing tariffs."

It will be observed that only the principal subjects in the index have been touched upon briefly. The report will, however, convey to you the fact that your Committee was kept busy throughout the year. The attendance at all meetings was very large, indicating the interest taken in the various problems and the desire to serve the Association as a whole.

All of which is respectfully submitted.

G. M. Murray, *Secretary.*

S. R. Parsons, *Chairman.*

J. E. Walsh, *Manager Transportation Department.*

TARIFF

The principal matters dealt with by your Tariff Committee during the past year comprise a large number of questions relating to the administration of the present Act, the extension of the British Preferential Tariff to a number of British colonies not heretofore enjoying the preference, the renewal of the Japanese Treaty, and the tariff changes of last session which were largely necessary under the recent trade agreement between Canada and certain British West India colonies.

British Preferential Tariff.

Under section 4 of the Tariff Act the Governor-in-Council is authorized to extend the benefits of the British Preferential Tariff to any British country. Pursuant to this authority an Order-in-Council was passed on January 25, 1913, which provides that in addition to the British countries already enjoying the preference the benefits of the British Preferential Tariff shall be extended to and apply on goods which are the produce or manufacture of the twenty-five British colonies enumerated in Appendix "A"—such benefits to be effective on and after February 1, 1913. The products likely to be available for importation from these British colonies are raw sugar, cocoanut oil and palm products, sago, rice, coffee, nuts, gums, tobacco, vanilla, fancy feathers, logwood and crude rubber. Your Committee reviewed the conditions likely to arise under this extension of the Preferential Tariff and were of opinion that they would be in accordance with the resolution adopted at the Association's Convention in Halifax, August 13 and 14th, 1902, viz.: "While the tariff should primarily be framed for Canadian interests, it should nevertheless give a substantial preference to the Mother Country, and also to any other part of the British Empire with which

reciprocal preferential trade can be arranged, recognizing always that under any conditions the minimum tariff must afford adequate protection to all Canadian producers."

Tariff Changes in Canada.

The tariff changes made last session were largely rendered necessary by the provisions of the agreement between Canada and certain of the West India colonies. This agreement was dealt with fully in our last Annual Report. The tariff changes became effective May 13, 1913, and are shown in detail in Appendix "B." The West India tariff agreement, by proclamation in all countries party to the agreement, was brought into operation on June 2, 1913. Your Committee is pleased to note that the concessions granted by this agreement on importations into Canada have caused the colony of Grenada to become an adherent to the agreement. Thus the colonies now extending preferential treatment to Canadian products are Grenada, Trinidad, British Guiana, Barbados, St. Lucia, St. Vincent, Antigua, St. Kitts, Dominica and Montserrat. Your Committee's tariff officer has dealt with a large number of enquiries from members as to the tariffs of these colonies, and as to the form of certificate prescribed to be written on invoices to ensure entry of Canadian products into these colonies under the preferential tariff rates—all of which indicates an earnest desire on the part of our members to trade with these colonies. A surprising feature of these enquiries is that so few, comparatively, know that the Government facilitates the export trade by allowing a drawback of 99% of the duties paid on imported materials used in Canada in the manufacture of articles exported—although your Committee has caused each member to be notified from time to time by circular letter and through INDUSTRIAL CANADA of these drawback facilities.

Outside the tariff changes growing out of the West India agreement, the changes made last session are shown in the following table:—

	—New Rate—		—Old Rate—	
	British Pref.	Gen'l.	British Pref.	Gen'l.
Photographs sent to the press, for use only as news pictures, under regulations by the Minister of Customs...	free	free	15 %	22½%
Cement, Portland, and hydraulic or water lime, in barrels, bags or casks, the weight of the package to be included in the weight for duty, per one hundred pounds	7c	10c	8c	12½c
Typecasting and typesetting machines and parts thereof, adapted for use in printing offices	free	free	12½%	20 %
Traction ditching machines (not being ploughs) adapted for tile drainage on farms valued by retail at not more than three thousand dollars each	free	free	15 %	27½%
Glassware and other scientific apparatus for laboratory work in public hospitals also apparatus for sterilizing purposes, not including washing or laundry machines; all articles in this item when imported in good faith for the use and by order of any public hospital	glassware Scientific apparatus		15 % 17½%	22½% 25%
	free	free	.....	.....
Cotton sewing thread in hanks	7½%	10%	10 %	15 %
Miners' rescue appliances designed for emergency use in mines where artificial breathing is necessary in the presence of poisonous gases, and automatic resuscitation apparatus for artificial breathing, to aid in the saving of human life	free	free	20 %	30 %
Nitrate compounds adapted for use in the manufacture of explosives	free	free	15 % except nitrate of ammonia, binitrototuol and trinitrototuol, which were free.	17½%

Japanese Treaty Act, 1913.

The Japanese Treaty Act, 1913, came into force on May 1st of the present year. By this Treaty Act Japan's Conventional Tariff rates, which are lower than the General Tariff rates in the Japanese Tariff, are extended to Canada; and Canada extends to Japan the rates of duty which apply on importations into Canada under the French Treaty. The Customs Tariff provisions applicable to Canada in this Treaty are practically the same as those reported at the Association's Convention, held in Toronto in 1911, except as to travellers' samples. The provisions dealing with travellers' samples follow.

"Articles imported as samples for the purposes above mentioned shall, in each country, be temporarily admitted free of duty on compliance with the Customs regulations and formalities established to assure their re-exportation or the payment of the prescribed customs duties if not re-exported within the period allowed by law. But the foregoing privilege shall not extend to articles which, owing to their quantity or value, cannot be considered as samples, or which, owing to their nature, could not be identified upon re-exportation. The determination of the question of qualification of samples for duty-free admission rests in all cases exclusively with the competent authorities of the place where the importation is effected.

"The marks, stamps, or seals placed upon the samples mentioned in the preceding Article by the Customs authorities of one country at the time of exportation, and the officially attested list of such samples containing a full description thereof issued by them, shall be reciprocally accepted by the Customs officials of the other as establishing their character as samples and exempting them from inspection, except so far as may be necessary to establish that the samples produced are those enumerated in the list. The Customs authorities of either country may, however, affix a supplementary mark to such samples in special cases where they may think this precaution necessary."

Regulations Respecting Samples Provided for by Treaty.

Under the French Treaty commercial travellers from any country entitled to the privileges of the Treaty were permitted to enter a full line of samples subject to refund on exportation, under regulations which in practice allowed travellers representing foreign houses situate in countries entitled to Treaty privileges to bring in a full line of high-priced commodities, and pay duty and obtain refund on that portion which they failed to sell in this country. Thus they enjoyed decided advantages over concerns established in Canada, be-

cause business houses in this country are required by law to pay duty on all dutiable importations without the privilege of exportation subject to refund of such lines as do not sell readily here. These conditions were considered by your Committee and placed before the Department of Customs, and after reviewing the situation the regulations above referred to were cancelled and new regulations promulgated which denied the privilege of refund except on the exportation of the whole of the goods entered as samples within twelve months from the time of entry. Subsquently the regulations were amended further in accordance with above provisions in the Japanese Treaty, and at present they provide as follows:

1. Samples of dutiable goods, solely for use in taking orders for merchandise, imported temporarily into Canada direct by non-residents from any British country or from Japan, or from any country entitled in Canada to the advantages of the Franco-Canadian Convention of 1907, may be admitted upon deposit of a sum equal to the duty, to assure the re-exportation of such samples within one year.

2. A temporary entry of such samples, in duplicate, with certified invoices annexed in the usual form, shall be presented to the Collector of Customs at the port of entry.

The importer shall make and subscribe to a declaration on the face of the temporary entry that the goods described therein are bona fide samples for use only in taking orders for merchandise and to be re-exported within twelve months.

3. When the samples are marked by a Customs Officer for identification and the temporary entry duly completed, the Collector may issue his permission for the release of the samples, upon receiving from the importer a sum of money equal to the duty, so as to assure the re-exportation of all the samples.

4. The permission for the release of the sample goods shall be in duplicate, with a notation thereon that the money deposited with the temporary entry of samples shall be returned to the importer, provided the whole of the said samples be exported within twelve months from the time of entry, with proof of such exportation furnished to the satisfaction of the Collector.

5. The deposit received with the temporary entry of samples shall be dealt with by the Collector in the same manner as Tourists' deposits.

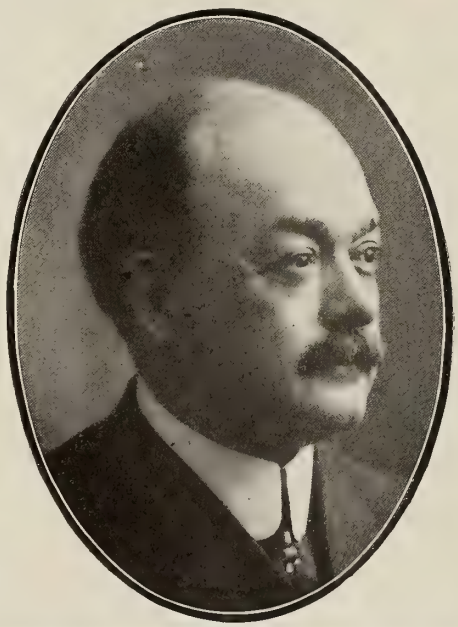
Such temporary entries shall be numbered and filed in consecutive order.

One copy of the temporary entry, with invoice and permission annexed, shall be delivered to the importer, so that the same may be presented to the Customs Officer when samples are re-exported.

NOTE:—The foregoing privilege does not extend to articles which, owing to their quality or value, or which, owing to their nature, could not be identified upon re-exportation.

The foreign countries entitled by Treaty to most-favored nation treatment in Canada in Tariff matters are:—Argentine Republic, Austria Hungary, Bolivia, Columbia, Denmark, France, Japan, Norway, Russia, Spain, Sweden, Switzerland, Venezuela.

Under the new regulations, foreign travellers have no advantage over domestic houses in merchandising so-called samples because they cannot obtain any refund unless their complete line as imported is exported.



MR. H. H. CHAMP

Steel Company of Canada, Limited, Hamilton, Chairman of the Tariff Committee, 1913-1914

The target for the *Grain Growers' Guide* this year is Mr. H. H. Champ, Steel Company of Canada, Limited, Hamilton. He secured this position at the same moment that he was elected Chairman of the Tariff Committee of the Association for the coming year. These jobs are inseparable. "Champ and Tariff" will be the twin bogles of the *Guide* next year. But he won't mind, because he is a steel man and accustomed to melting heat.

Twenty-seven years ago he began his business career in Hamilton with the Ontario Rolling Mills. When this company was amalgamated with the Hamilton Steel & Iron Company, Mr. Champ became its Accountant. He rose to be Director and Secretary. When the Steel Company of Canada was organized he was made its Secretary and Treasurer, and holds the dual position at present.

In Association affairs he has taken part by acting as Chairman of the Financial Committee of the Hamilton Branch and on the Tariff Committee for three years. He is a past President of the St. George's Society of Hamilton.

Customs Cartage.

By instruction of February 10th, 1913, new Customs Cartage regulations were issued. These regulations came into operation first at Winnipeg, it appears, through the termination of existing contracts. The Executive Committee of the Winnipeg Branch entered a strong protest against the additional charge imposed on consignees under the new regulation whereby they were called upon to pay a charge of 10c. per package for cartage to the examining warehouse and 12c. additional for cartage of each package thence to consignees' premises. Before this, on goods removed to the Examining Warehouse for examination and appraisal cartage charges were so arranged that importers were not subject to greater cartage charges than would apply on goods delivered direct from railway freight sheds to their premises. The operation at Winnipeg of these two cartage charges against consignees was taken up by your Committee and placed before the Department of Customs; and the situation was reviewed and taken up by that Department with the railway companies. These companies advised the Department that where they collected cartage tolls at cartage stations such tolls would effect delivery of the goods to the examining warehouse—the tolls so collected from the public being in accordance with the Tariffs filed with the Board of Railway Commissioners. The Customs arranged for the delivery of such packages from the examining warehouse without further charge to importers.

Raw Leaf Tobacco.

On a complaint that raw leaf tobacco was required to be weighed at the landing depot and again at the excise bond, thus occasioning loss by delay and by duplication in weighing, the matter was taken up with the Department of Customs and Inland Revenue, and your Committee are pleased to state that a ruling was obtained which does away with duplication in weighing, viz., that raw leaf tobacco in packages (except small lots) other than hogsheads, on entry for removal to excise bond may be weighed at the landing depot by an officer of the excise whose certificate as to weight suffices for all Government requirements. When the tobacco is contained in hogsheads it may be removed (as heretofore) from the depot direct to the excise bond upon Collector's permission and weighed at the excise bond.

Board of Customs Decisions.—Fire Brick.

Under Tariff Item 281 "fire bricks of a class or kind not made in Canada" are specified as free; and under Item 282

other bricks are specified as dutiable at 12½% under the British Preferential Tariff and 22½% under the General Tariff.

In April, 1908, by Appraisers Bulletin 266 Collectors of Customs were instructed that fire brick valued at $13.00 or less per 1,000 at place of export belonged to a class or kind of fire brick made in Canada and would be dutiable under Tariff Item 282. In May the Board of Customs issued a new ruling on fire brick of a class or kind made in Canada effective June 13th last as follows:

"Silica Fire Brick 9" x 4½" x 2¼" valued at over $16.00 per thousand at place where laden for export are held to be free as of a class or kind not made in Canada."

"Other fire brick (9" x 4¼" x 2½") valued at over $19.50 per thousand at place of export are to be admitted free under Tariff Item 281 until otherwise ordered, but fire brick valued at $19.50 per thousand and less at place of export, are held to be made in Canada and subject to duty under Tariff Item 282,—in effect from May 31st, 1913.

Locomotive fire brick (arch blocks, fire box blocks, boiler tile) and fire brick stove linings are made in Canada and importations thereof are rated for duty under Tariff Item 282.

Note.—(a) That importations of above described fire brick as rated for duty under Tariff Item 282, are rendered subject to special or dumping duty in cases where the true selling price (F.O.B. place of shipment), to the purchaser in Canada, is more than 7½% lower than the value of the same for duty purposes; and

(b) That fire clay gas retorts, hollow shapes, and hollow blocks, although made of fire clay, are rated for duty under Tariff Item 282.

(c) One fire brick 9" x 4¼" x 2½" weighs about 6 lbs. 13 oz. The value of this fire brick when costing $19.50 per thousand at place of export amounts to about 20 cents per 100 pounds.

The makers of fire brick brought to the attention of the Department of Customs the fact that they were large manufacturers of fire bricks of the quality in question and the Board's recent decision was made after investigating these representations.



MR. W. C. PHILLIPS
Chairman Tariff Committee, 1912-13

Ivory Soap; manufactured by the Proctor & Gamble Co., Cincinnati, Item 228, 32½% ad valorem, General Tariff.

Carbon Discs; when without metallic base, for use in telephone construction, Item 711, duty 15% under the British Preferential Tariff and 17½% General Tariff.

Mica Schist; adapted for lining furnaces, etc., in the rough, unwrought, not being fit for building stone, flagstone or paving, Item 296, duty free.

Litho. Varnish so called and printing ink oil produced from linseed oil, Item 711, duty, British Preferential Tariff 15% and General Tariff 17½%.

Cotton Fabrics; in creams, doves and other shades, Item 523, duty 25% under British Preferential Tariff and 32½% General Tariff.

Cremegg; per sample, principally glucose, Item 141, duty 22½% under the British Preferential Tariff and 35% General Tariff.

Machines for ironing knitted woollen wear, although of a class or kind not made in Canada, Item 453, duty 15% under the British Preferential Tariff and 27½% General Tariff.

Sugar; from cane or beet root imported for the Passover, not exempt from application of the dumping duty clause.

Jute packing, per sample, Item 538, duty 15% under the British Preferential Tariff and 25% under the General Tariff

Celluloid Sheets; interlined with cotton or linen fabric adapted for use in the manufacture of collars, Item 191, duty 20% General Tariff.

Portable Vibrators, such as Bee Pedestal vibrators and Bee Portable vibrators, adapted for scalp or body massage declared to be dutiable under Item 453 (General Tariff rate 27½%).

Electric douches declared to be dutiable under Tariff Item 453 (General Tariff rate 27½%).

Matrices for typecasting machines, Item 441, duty free effective on and from May 13th, 1913.

Rough slate slabs, as taken from the quarry, for the manufacture of switch boards, Item 711, duty 15% British Preferential, and 17½% General Tariff.

Glass plates or discs for use in the manufacture of optical instruments, ruled not to be free under Item 759 except when not further wrought than "rough cut," which means "rough ground."

Old fabric, of linen or cotton, cleaned, adapted for use as wiping cloth, Item 533, duty 7½% under British Preferential Tariff and 12½% General Tariff.

Chemical compounds; consisting of a mixture of soda ash and caustic soda, Item 220, duty 20% under British Preferential Tariff and 25% under General Tariff.

Cut Glass not allowed entry under Item 326A for any purpose, but held to be dutiable under Item 326, duty 20% under the British Preferential Tariff and 32½% General Tariff.

Angle Iron, cut to special form and size, Item 454, duty 20% under the British Preferential Tariff and 30% under the General Tariff.

Item 696; declared that the application of the words "philosophical" and "scientific" in this item extend to "apparatus, utensils, and preparations," mentioned in said item.

Rulings.

Preparations containing cocaine are to be admitted only when the labels and wrappers covering same contain no reference to any malady for which the preparation is intended as a relief or cure. No prescription or dosage shall be indicated on the package when imported. Such preparations may be imported for the use only of bona fide practising physicians in prescribing for their patients.

Ceresin Wax, Item 225, 10% General Tariff, when the melting point is 54 degrees cent. or over.

Spoolers and Warpers specially adapted for use in cotton mills, Item 468, duty 10%.

Ladies' embroidered collar, with lapel attached, Item 575, duty 25% under British Preferential Tariff and 35% General Tariff.

Silver Solder in plates, Item 711, duty 15% under the British Preferential Tariff and 17½% General Tariff.

Floor Tile of earthenware, Item 385, duty 20% under British Preferential Tariff and 30% General Tariff.

Front Axle forgings, with yokes or jaws to carry front wheel spindles of automobiles, when imported in the rough, not machined, Item, 343, duty 20% under the British Preferential Tariff and 30% General Tariff.

Steel Cylinders, being usual coverings containing anhydrous ammonia under pressure, Item 710B, duty 15% under British Preferential Tariff and 20% General Tariff.

Jute Silver, for the insulation of wire, Item 542, duty free.

Mailing cases, per samples, made with tin ends and paper sids, Item 344, duty 25% General Tariff.

Fused blank lenses of glass for the manufacture of spectacle lenses, Item 326A, duty 22½% General Tariff.

Marble or stone, crushed, as used for terrazo flooring, Item 711, duty 15% under the British Preferential Tariff and 17½% General Tariff.

Alundum powder for use on buffing wheels, Item 756, duty free.

Klaxon motor-driven electric horns, Item 453, duty 15% under the British Preferential Tariff and 27½% under the General Tariff.

Talcum powder tins, Item 344, duty 25% General Tariff.

Ground shale, Item 711, duty 17½% General Tariff.

Wire solder, Item 711, duty 15% under the British Preferential Tariff and 17½% General Tariff.

Mineral water, known as "zero 40," when natural mineral water as taken from the well or spring and imported in bulk, Item 154, free.

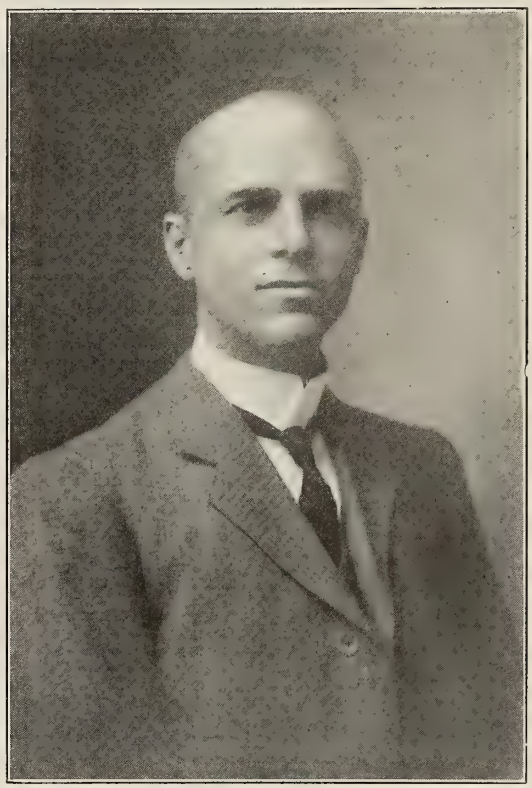
Brass bars, including angles and channels in lengths not less than six feet and not further manufactured than drawn, Item 717, duty free.

Paper, per sample, specially prepared for manufacture of blue print paper, Item 188, duty free.

Jute yarn, for weaving or braiding on wire for insulation purposes, Item 542, duty free.

Lithographed blotting paper, without lettering thereon, Item 197, duty 15% British Preferential Tariff and 25% General Tariff.

Hard soap (not being whale oil soap or castile soap), when the fair market value thereof at the place of manufacture abroad is over six cents per pound wholesale, dutiable under Item 228, duty 32½% General Tariff.



MR. J. R. K. BRISTOL
Manager Tariff Department

Aluminum stamped to shape to be polished and made into reflectors, Item 354, duty 25% General Tariff and 15% British Preferential Tariff.

Panel board cabinets, assembled and finished, Item 453, duty 15% under the British Preferential Tariff and 27½% General Tariff.

Titanium ore, ground, Item 711, duty 15% under the British Preferential Tariff and 17½% General Tariff.

Buckram, so called (jute fabric cemented between two thicknesses of buckram), Item 562, duty 20% under British Preferential Tariff and 30% General Tariff.

Paper-cutting machines for use in paper-making mills, Item 442, duty 5% British Preferential Tariff and 10% General Tariff. Harness bits and metal spots for use on harness, as saddlery, Item 612, duty 20% British Preferential Tariff and 30% General Tariff.

Zinc dust, under Item 345, is zinc metal very finely ground.

Metal eyelets used in making hinge combs, free, Item 671.

Aluminum bases for electrotypes, Item 433, duty ⅛c. per sq. inch.

Nut gall extract, for the manufacture of ink, Item 203, free.

Picker lags, used in covering picker cylinders in machines for preparing waste for carding, Item 468, duty 10%.

Bicycle saddles, as saddlery, Item 612, duty 20% under the British Preferential Tariff and 30% under the General Tariff.

Wool-drying machines of a class or kind not made in Canada, when imported by manufacturers for drying wool in their own factory, Item 468, duty 10%.

Corrugated galvanized sheet iron, Item 454, duty 20% under the British Preferential Tariff and 30% under the General Tariff.

Laying machine attachment, when forming part of paper-cutting machines, Item 442, duty 10%.

Pressed spikes of iron or steel, Item 417, duty 35% General Tariff.

Braiding machines, used in braiding animal or vegetable fibrous materials on wire, Item 468, duty 10%.

Automobile windshields, dutiable under the General Tariff at 30%.

Electric cigar lighters, per sample, Item 435, General Tariff rate 30%.

Japanese silks, printed in France and afterwards exported to Canada direct from France or from the United Kingdom are entitled to entry in Canada at French Treaty rates so long as the manufacturing processes performed in France equal 25% or more of the cost of such fabric as finished in France.

Engravers' glass screens for halftone work, and engravers' camera lenses, allowed to be exported for repair conditional on return on payment of duty on the value of the repair work done abroad, provided the screens or lenses are valued in each case at not less than ten dollars, and provided also that they are marked by the Customs for purposes of identification and entered for export under Customs supervision.

United States Tariff.

Your Committee has caused the Association's Tariff officer to keep in close touch with the changes introduced from time to time in the new United States Tariff Bill. The interest manifested in this bill by our members is evidenced by the very large number of letters which they have addressed to your tariff officer in regard to it.

Miscellaneous.

Other matters, of which some were of an individual character, such as settlement of application for refund of duty incorrectly paid, etc., have engaged the attention of the Tariff Department. There were also a large number of cases dealing with the importation of goods at export or dump prices which were investigated with satisfactory results.

All of which is respectfully submitted.

G. M. Murray,
Secretary.

W. C. Phillips,
Chairman.

J. R. K. Bristol,
Manager Tariff Department.

Appendix "A."

Swaziland.	Somaliland Protectorate.
Basutoland.	Federated Malay States.
Bechuanaland Protectorate.	British North Borneo.
Northern Rhodesia.	Sarawak.
Nyassaland Protectorate.	Brunei.
Uganda Protectorate.	Mauritius and Dependencies thereof.
East Africa Protectorate.	Seychelles.
Protectorate of Northern Nigeria.	St. Helena.
Colony and Protectorate of Southern Nigeria.	Ascension.
Gold Coast.	Friendly or Tonga Islands.
Sierra Leone.	Fiji.
Gambia.	Falkland Islands.
	British Honduras.

Appendix "B."

Tariff Items.		British Preferential Tariff	Intermediate Tariff.	General Tariff.
20	Cocoa paste or "liquor" and chocolate paste or "liquor,"			
20a	not sweetened, in blocks or cakes .....per pound	3½ cents.	4 cents.	4 cents.
21	Butter produced from the cocoa bean .....per pound	1½ cents.	2 cents.	2 cents.
	Cocoa paste or "liquor" and chocolate paste or "liquor," sweetened, in blocks or cakes			
22	not less than two pounds in weight .....per pound	3½ cents.	4 cents.	4 cents.
23	Preparations of cocoa or chocolate in powder form.....	20 p.c.	25 p.c.	25 p.c.
	Preparations of cocoa or chocolate, n.o.p. and confectionery coated with or containing chocolate, the weight of the wrappings and cartons to be included			
39a	in the weight for duty..per pound and	⅜ cent. 22½ p.c.	⅜ cent. 35 p.c.	⅜ cent. 35 p.c.
39b	rice flour, sago flour, cassava flour, tapioca flour, and rice	¾ cent.	1 cent.	1 cent.
93a	meal .....per pound	¾ cent.	1 cent.	1 cent.
69a	Arrowroot .....per pound	12½ p.c.	17½ p.c.	17½ p.c.
77	Rice bran	15 p.c.	20 p.c.	20 p.c.
	Cattle food containing molasses..			
77a	Beans, viz.:—Tonquin and vanilla, crude only; locust beans; locust bean meal.....	Free.	Free.	Free.
101	Cocoa beans, not roasted, crushed or ground ..... per one hundred pounds	Free.	75 cents.	75 cents.
101a	Oranges, shaddocks or grape fruit	Free.	Free.	Free.
109	and lemons	Free.	10 p.c.	10 p.c.
	Limes			
110	Nuts of all kinds, n.o.p., including	1 cent.	2 cents.	2 cents.
111	shelled peanuts.....per pound	25 cents.	75 cents.	75 cents.
	Cocoanuts, n.o.p..per one hundred			
	Cocoanuts when imported from the place of growth, by ship,			
113	direct to a Canadian port..... per one hundred	Free.	50 cents.	50 cents.
113a	Cocoanut, desiccated, sweetened or not .....per pound	2 cents.	4 cents.	4 cents.
134	Copra or broken cocoanut meat not shredded, desiccated or prepared in any manner..per pound	Free.	¾ cent.	¾ cent.
	All sugar above number sixteen Dutch standard in colour, and all refined sugars of whatever kinds, grades or standards testing not more than eighty-eight degrees by the polariscope.... per one hundred pounds	72 cents.	93 cents.	93 cents.
	And for each additional degree over eighty-eight degrees..... per one hundred pounds	1 cent.	1½ cents.	1½ cents.
	Provided that fractions of five-tenths of a degree or less shall not be subject to duty, and that fractions of more than five-tenths shall be dutiable as a degree.			
	Provided that refined sugar shall be entitled to entry under the British Preferential Tariff upon evidence satisfactory to the Minister of Customs that such refined sugar has been manufactured wholly from raw sugar produced in the British colonies and possessions, and not otherwise.			
135	Sugar, n.o.p. not above number sixteen Dutch standard in colour, sugar drainings or pumpings drained in transit, melado or concentrated melado, tank bottoms, sugar concrete, and molasses testing over fifty-six degrees and not more than seventy-five degrees by the polariscope..per one hundred pounds	25 cents.	31¼ cents.	31¼ cents.
	And for each additional degree over seventy-five degrees..... per one hundred pounds	¾ cent.	1¼ cents.	1¼ cents.
	Provided that fractions of five tenths of a degree or less shall not be subject to duty, and that fractions of more than five-tenths shall be dutiable as a degree.			
	Provided that all raw sugar, including sugar specified in this item, the produce of any British colony or possession, shall be entitled to entry under the British Preferential Tariff, when imported direct into Canada from any British country.			
135 a	Provided that sugar imported under this item shall not be subject to special duty.			
	Raw sugar as described in tariff item 135, when imported to be refined in Canada by Canadian sugar refiners, to the extent of the quantity of sugar refined during the calendar years 1912 and 1913, by such refiners from sugar produced in Canada from Canadian beet-root under regulations by the Minister of Customs, per one hundred pounds, testing not more than seventy-five degrees by the polariscope.	25 cents.	25 cents.	25 cents.
	And per one hundred pounds for each additional degree over seventy-five degrees	¾ cent.	¾ cent.	¾ cent.
136a	Provided that sugar imported under this item shall not be subject to special duty. This item to expire December 31, 1914.			
140a	Molasses of cane, testing by polariscope under thirty-five degrees but not less than twenty			
141	degrees .....per gallon	Free.		
	Shredded sugar cane	12½ p.c.	1½ cents. 17½ p.c.	1½ cents. 17½ p.c.
152	Sugar candy and confectionery n.o.p., including sweeetened gums, candied peel, candied popcorn, candied fruits, candied nuts, flavouring powders, custard powders, jelly powders, sweetmeats, sweetened breads, cakes, pies, puddings and all other confections containing sugar	22½ p.c.	35 p.c.	35 p.c.
152a				
153	Lime juice, fruit syrups, and fruit juices, n.o.p.	15 p.c.	20 p.c.	20 p.c.
180a	Papaine	12½ p.c.	17½ p.c.	17½ p.c.
	Lime juice, raw and concentrated, not refined, per gallon.....	Free.	5 cents.	5 cents.
205a	Photographs sent to the press, for use only as news pictures, under			
264	regulations by the Minister of Customs	Free.		
	Cassava root, unground.....	Free.	Free.	Free.
276a	Essential oils, n.o.p., including		Free.	Free.
277a	bay oil, otto of limes, and peppermint oil	5 p.c.		
290	Cotton seed oil, n.o.p.	12½ p.c.	7½ p.c.	7½ p.c.
	Cocoanut oil, n.o.p.	12½ p.c.	17½ p.c.	17½ p.c.
441	Cement, Portland, and hydraulic or water lime, in barrels, bags or casks, the weight of the package to be included in the weight for duty..per one hundred pounds	7 cents.	17½ p.c.	17½ p.c.
446a	Typecasting and typesetting machines and parts thereof adapted for use in printing offices	Free.	10 cents.	10 cents.
166a	Traction ditching machines (not being ploughs) adapted for tile drainage on farms, valued by retail at not more than three thousand dollars each.....	Free.	Free.	Free.
	Glassware and other scientific apparatus for laboratory work in public hospitals, also apparatus for sterilizing purposes, not including washing or laundry machines; all articles in this item when imported in good faith for the use and by order of any public hospital.....	Free.	Free.	Free.
535	Cotton sewing thread in hanks..	7½ p.c.	Free.	Free.
584a	Asphalt, not solid.....	12½ p.c.	10 p.c.	10 p.c.
616a	Balata, crude, unmanufactured..	Free.	17½ p.c.	17½ p.c.
664a	Nitrate compounds not elsewhere specified adapted for use in the manufacture of explosives.....	Free.	Free.	Free.
680a	Sponges of marine production...	12½ p.c.	Free.	Free.
689a	Miners' rescue appliances, designed for emergency use in mines, where artificial breathing is necessary in the presence of poisonous gases, and automatic resuscitation apparatus for artificial breathing, to aid in the saving of human life.....	Free.	Free.	Free.

TECHNICAL EDVCATION

The activity of your Technical Education Committee, ever since it was first called into being in 1904, has been centred upon one objective, namely, the establishment of a comprehensive national system of industrial education, so planned as to take care of the needs of all classes and of all localities, and so administered that the Federal Government, the Provincial Governments, the various municipal authorities, and private individuals, each as a class would share in the responsibility and the cost of maintenance.

Feeling themselves unequal to the task of evolving such a system, and at the same time recognizing that the findings of a Committee of this or any other organization would necessarily fail to command the desired attention and respect, your Committee's first efforts were directed towards inducing the Federal Government to appoint a Royal Commission of Enquiry, that would make a survey of the needs and present equipment of Canada with respect to industrial training and technical education, and that would then point the way for meeting those needs by an exhaustive report upon the systems and methods prevailing in other countries. Such a report by such a Commission, clothed as it would be with dignity and authority by reason of its Royal warrant, was looked upon not only as a prerequisite to the successful inauguration of a broad-based system for Canada, but as a happy means of harmonizing all responsible interests, and insuring their warm co-operation.

In this effort your Committee were finally successful, the desired Commission being appointed in 1910 after six years of almost constant agitation.

And now, after the lapse of another three years, the Commission has reported, and its findings have been made public.

To say that the report has fully justified the representations and expectations of your Committee is to state the case very mildly. That the investigations of the Commission would be thorough was a foregone conclusion. It was similarly to be expected that the Commission would find some way of avoiding the constitutional difficulties with which the problem was beset, owing to the terms of the British North America Act. But that the report should be so full of encouragement and inspiration, and that its method of handling the constitutional difficulty should be so happy, must have come as an agreeable surprise to us all. Your Committee believe that the information which this report has placed at the disposal of the Canadian people will prove of inestimable value, not only in giving intelligent direction to, but in stimulating technical and vocational education of every kind in all parts of the Dominion, while its recommendations regarding financial aid cannot fail, if acted upon, to bring Canada quickly to the forefront of modern nations of industrial efficiency.

Many of you have no doubt been privileged to read the conclusions and recommendations of the Commission in the concise form in which Part I. of the report presents them; if you have not been so favored, it may be assumed that in a general way you are familiar with the character of these conclusions and recommendations by reason of the prominence given them by the press of the Dominion. To review them even in the most superficial manner would require far more time than is available on this occasion, so we shall content ourselves with saying that, commencing with the very fundamentals of education as taught in our public schools, right through to the highest form of technical instruction as provided by institutions of university grade, and digressing by the way so as to include night schools, continuation classes, part-time classes, apprenticeship schools, trade schools, correspondence courses, and institutes of research, the report of the Commission is exhaustive in its data, logical in its reasoning, and convincing in its conclusions. Further than this, it offers us a symposium of the best thought of the most successful leaders in educational work, both in Europe and America, a feature of real value that can only be appreciated by those who have wrestled with the practical application of educational theories.



MR. H. H. MASON

Mason & Risch, Ltd., Toronto, Chairman of the Technical Education Committee, 1913-1914

In 1889, the year he matriculated into Toronto University, Mr. H. H. Mason, of Mason & Risch, Limited, applied for and secured the position of entry clerk in a wholesale fancy goods firm. Some years later he was taken into the office of Mason & Risch by his uncle, Mr. T. E. Mason. He travelled for the company in Ontario and Western Canada, founding branches in the most important cities and towns. At present he is Managing Director of the Company.

When he is not engaged in the piano business he plays tennis. He is also well known in aquatic circles, having acted as Commodore and Vice-Commodore of the Toronto Canoe Club.

He was elected this year as Chairman of the Technical Education Committee of the Association.

The recommendations of the Commission in so far as they relate to the question of federal aid are of particular interest, because they constitute what is, after all, the mainspring of the report, the latent force which, when put into action, starts all other parts of the mechanism into motion.

Having regard to the importance of elementary drawing, manual training, experimental science, and pre-vocational work as foundations upon which a system of technical education should be built up, and until such time as suitable teachers of these subjects are more generally available, the Commission suggests a federal grant of not less than $350,000 a year for ten years, to be divided among the provinces in proportion to population, each province to be permitted to draw upon its appropriation, after furnishing satisfactory evidence of work done, to the extent of 75 per cent. of its actual outlay on salaries and equipment, but not on buildings.

Following this the Commission recommends a Federal Parliamentary grant of $3,000,000 a year for ten years for the encouragement of technical instruction adaptable to those who have passed the public school age of 14. This money is to be apportioned in a similar manner and administered in a way

that will not only encourage local initiative, but will avoid any possible criticism on the ground of interfering with provincial control, an exceedingly delicate point which the Commission seems to have handled with signal success.

For the administration of these funds the Commission would call into being, first, a set of urban and rural development boards, whose duty it would be to provide the respective localities in which they are situated with instruction and equipment suited to their needs; next, a development conference for each province, aided by a development commission to do its executive work, the function of these bodies being to provide and allocate the institutions of higher grade which must necessarily serve more than one locality, and to pass upon the efficiency of each institution that is an applicant for a share of the federal grant; finally, a Dominion development conference and a Dominion development commission, which would be expected to administer the Parliamentary appropriation, and to supplement the provincial programmes by arranging for industrial museums, institutes of research, and other necessary adjuncts of a comprehensive system of technical education.

Believing that the best interests of Canada as a whole would be served by the Government giving immediate effect to these financial recommendations, your Committee, with the approval of the Executive Council, placed the Association on record accordingly with every member of the Federal Cabinet. These communications were acknowledged in due course, with the customary promise of careful consideration, and there the matter rests.



MR. J. S. McKINNON
S. F. McKinnon & Co., Ltd., Toronto
Chairman Technical Education Committee
1912-1913

As the Commission's report was not tabled in Parliament until almost the end of the session, it is perhaps a little early to look for any definite announcement of the policy of the Government in regard thereto. We have good reasons for saying that very little importance need be attached to rumors that have appeared in the press to the effect that the Government are indifferent. On the contrary, we know many of the Ministers are deeply interested, and if they have refrained thus far from committing themselves, it is only because of the unfortunate delays that have attended the appearance of the last two volumes of the report.

It may be that the Government may deem it wise to defer action until officially urged thereto by the provinces. In this connection it should be remembered that the report now under consideration is that of a commission created and appointed while the present Government were in opposition, and they might with some justification demur at giving effect to its findings without some assurance from the provinces that such action on their part would be welcome. Before the Order in Council was passed providing for the appointment of a Commission, the then Minister of Labor, Hon. W. L. Mackenzie King, inquired of the various provincial Premiers whether they would have any objection to an inquiry of the kind contemplated, and it may be significant that while seven replied in a most cordial vein, the Premiers of Ontario and Quebec were careful to qualify their approval by stating that they assumed the Commission would confine itself to the gathering of information, that would subsequently be available for such use as the provinces chose to make of it.

Whether or not these replies are indicative of difficulties to be encountered, in view of the elaborate nature of the Commission's recommendations, your Committee are of the opinion that no time should be lost in urging upon the various Provincial Governments the desirability of their placing themselves promptly on record with the Government at Ottawa as being entirely in sympathy with what the Commission has proposed. In some cases such a commitment might be easy to secure, in other cases it might follow only after a good deal of pressure. Your Committee would suggest, therefore, that the matter be left in their hands, with permission to solicit the co-operation of municipal councils, boards of trade, labor organizations, and other bodies, and to arrange for deputations to wait upon our various Governments, both Federal and Provincial, for the purpose of emphasizing the desires of the business community in this direction.

All of which is respectfully submitted.

J. S. McKinnon, *Chairman.* G. M. Murray, *Secretary.*



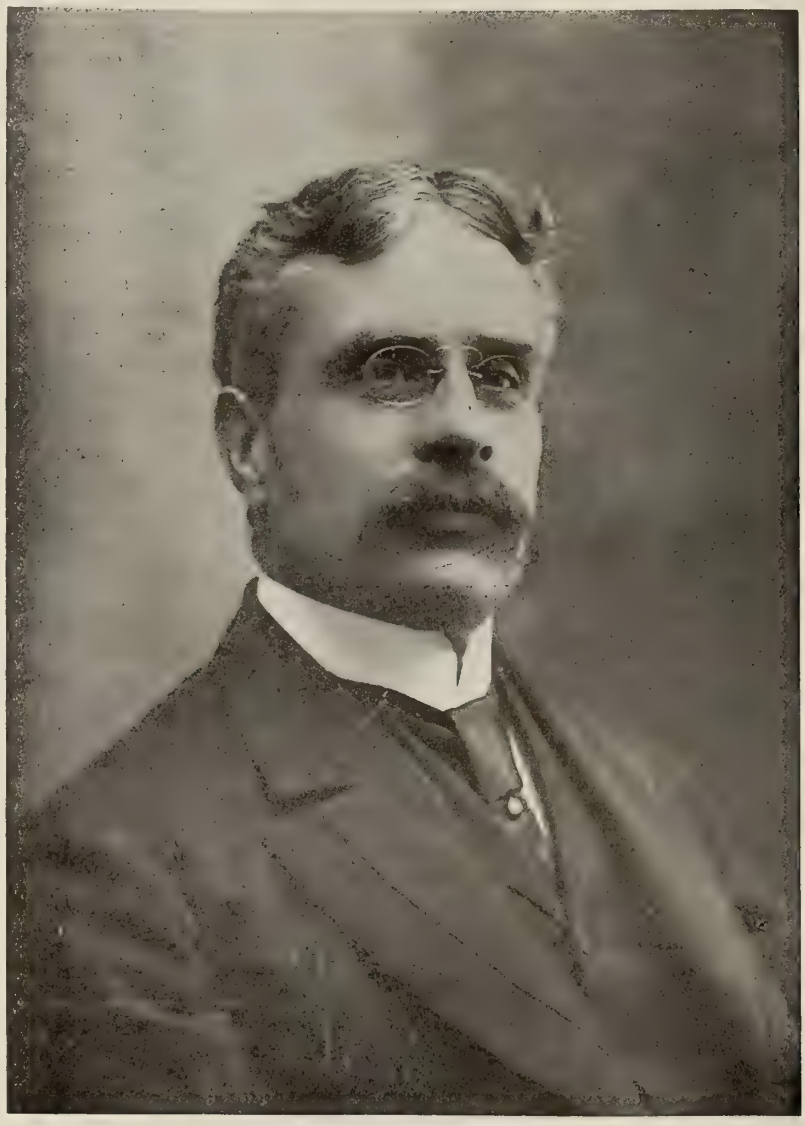
TRANSPORTATION AND FINANCE

From the Speech of Premier Borden at the Halifax Convention

THE convention banquet of the C. M. A. at Halifax was honored with the presence of the Right Honorable R. L. Borden, Prime Minister of Canada. The Premier dwelt upon the early history of his "native Province by the sea," enriching his remarks by allusions from the classics, and happy references to the prosperity of Canada.

In dealing with the question of transportation, he said:

"Our communities are scattered, and the problem of transportation—a vital one to our people—has not been exceeded even by the fiscal problem. But with the introduction of motor boats, now almost universally made use of by the fishermen of the south shore, and with the other improvements which are now being made, and which I hope will be continued in the means of transportation to Ontario and Quebec and to the West, I do not doubt that the development of this industry will equal the expectations of the most sanguine, the most confident and the most optimistic Nova Scotian. I hope it will be so. I hope in the development of the industry which you specially represent, the manufacturing industry, that the people of Nova Scotia, New Brunswick and Prince Edward Island to a certain extent will come into their own at no distant day.



RIGHT HON. R. L. BORDEN
Prime Minister of Canada

"The problem of transportation is one the record of which in this country I am sure must inspire every Canadian with a sense of pride. The development of our national waterways, the development of our national resources has gone on at an unprecedented rate. We have been undertaking, and with some success, to do within the space of twenty-five or fifty years what has occupied the energies of other countries for one hundred and fifty or two hundred years."

He then dealt with the financial policy of the country as follows:

"Your President spoke of the necessity of borrowings in this country. The very interests of the country made that imperative. I took occasion shortly before coming to Halifax to ascertain the volume of immigration of this year. The figures up to the 31st of July were more than 250,000, and I was informed by the officials of the Department of Trade and Commerce that if the increase which had been maintained up to the 31st of July shall be maintained during the rest of the year we will have brought into Canada for the fiscal year, which will end on the 31st of March, 1914, a population approximately equal to that of Nova Scotia, 483,000 people. When you bring a population of that volume into this country, when homes must be provided, cities and towns established, roads provided, houses built, municipal improvements made, when in addition to all these the very marvelous extent of the country itself, and its natural resources awaiting development, are considered, when all these things are considered, no one should be surprised that we have not in this country in this early stage, all the capital necessary to accomplish these things. It was necessary to go outside to get capital, and so long as that capital has been applied to useful and profitable purposes, which has been the case in the main, the very necessity of going outside, the very act of going outside for capital to be applied to these useful purposes merely indicates the enterprise of the Canadian people, and their ability to develop that great heritage which Providence has placed at their disposal."

EXHIBITS AT HALIFAX BANQUET.

The miniature exhibits placed on the banquet table at Halifax by Nova Scotia manufacturers attracted much attention. Among these were:

Model of bungalow from Brandram-Henderson Company, Halifax. Model car in every detail from Canadian Car Company, Amherst. Models of mine lamps and gear from Dominion Coal Company, Glace Bay. Model of steel rail, spikes and nails from Dominion Iron & Steel Company, Sydney. Starr trophy from Starr Manufacturing Company, Dartmouth, designed for the company by Stuart Wetmore. Model of Nova Scotia fisherman in chocolate from J. P. Mott & Company. Model of bridge from Maritime Bridge Company, New Glasgow. Model in bas relief depicting different activities of the Nova Scotia Steel & Coal Company, showing pressing hammer at steel works at Trenton, operations at Sydney mines and the Wabana mine, Newfoundland.

MR. GORDON'S HALIFAX ADDRESS

MR. C. B. GORDON, President of the Canadian Manufacturers Association for 1913-1914, gave a splendid address at the convention banquet, which was held at the close of the convention in the Haifax Hotel on September 18th. The address follows:

Eleven years ago a memorable meeting was held here, which has always been remembered as one of the most successful meetings we have ever had. At that meeting, the famous Halifax resolutions were passed and were in effect that the Association put themselves on record as being in favor of a fiscal policy which would build up Canadian manufacturing and thus develop the resources of our country, and it also approved the British Preference.

Since the Association was formed, forty-two years ago, we have seen many changes in Canada. The Manufacturers



HON. G. H. MURRAY
Premier of Nova Scotia

Association of relatively limited influence or importance for some years, has grown to be what it is to-day, an organization of 3,000 members, embracing within its membership every manufacturer of importance in the Dominion, and thus representing and embodying, in a most complete and far-reaching way, the commercial life of the Dominion, as practically every enterprise which has to do with the development of the country is actively represented in the Association.

The Good Work of Ex-President Gourlay.

During the years of its existence we have numbered amongst our active members very many of the prominent men in Canadian life, many of whom have now passed away, and the Association has been fortunate in having for the members of their Executive representative Canadians who have been proud to fill these positions, and the high office of President has come to be looked upon as one of the greatest honors in the commercial life of the Dominion, because, I think I am safe in saying, that the Association occupies a place of influence and dignity in the eyes of all those who are engaged in manufacturing and commerce, and of the people generally, and I would like to say that in my opinion, and I think I voice the opinion of all our members, Mr. Gourlay has ably and most efficiently conducted the affairs of the Association, and added his share to the long list of successful years which we have passed through.

Not the Watchdog for a High Tariff.

At one time, in the dim and distant past, I think I may say now, there was an impression in certain parts of this country, and amongst some people, that the Manufacturers Association was primarily constituted to be the watchdog of a high protective policy; and, that being so, that a great majority of its members could only be expected to vote in one way. This idea is now pretty well exploded, and only exists to-day among a very small number of people, for, since 1878, and during a period now of thirty-five years, we have had both the great political parties in power, and the present moderate tariff is the outcome of legislation in which both parties have had a hand.

It has always been the policy of the Association to be strictly a non-political body, although they have always advocated a policy of protection, and I believe to-day that our members are convinced that whatever party is in power they are sure of fair treatment in this respect. After thirty-five years of development such as we have enjoyed in this country, considering the vast interests which have been created, and the enormous progress which has been made in the development of our resources, I am convinced that there is no important section of the people of Canada who would favor a change which would interfere materially with present conditions.

An Adjustment of Parts of the Tariff.

It must be remembered that since 1878 the investment of British and foreign capital in manufacturing establishments and in industries incidental thereto has been enormous. Any change, therefore, in the policy of the country in regard to tariff matters must be approached in a careful and conservative manner if the best interests of our own people are to be considered, and if the capital already invested is to be properly safeguarded and the high credit and borrowing powers we have enjoyed in the past maintained. But although I think I am safe in making the statement that the tariff is generally satisfactory to the manufacturers' interests, and is approved by the vast majority of the people of Canada, still, through the lapse of time, and due to the ever-changing conditions under which business is carried on, especially in a new country, inconsistencies have crept into it, and if in many cases these are not of a serious nature, still they call for adjustment.

Semi-Finished Articles in the Steel Industry.

I am not here to say that a general revision of the tariff is either necessary or advisable at this time—but I am convinced that there are some items in the tariff which call for immediate action on the part of the Government, which, if not properly adjusted, will lead to serious losses to investors and to the credit of the country generally. I refer, for instance, to the iron and steel tariff, to which a certain amount of protection is given with one hand and taken away with the other. The finished products in this country have been given a fair amount of protection, but the materials of a semi-finished nature, which are produced by the develop-

ment of our natural resources, are left without proper protection. I do not think that even this schedule calls for any advance which would cost the consumer a penny, but rather to internal adjustment, placing the rates on the different manufactures of iron and steel where they properly should be, to afford a fair and scientific protection according to the amount of capital and labor involved.

Why the Opinion in the West in Changing.

The Manufacturers Association understand that the position of the Government in dealing with tariff is a delicate one, as it has been said that the West was opposed to Protection. But we have reason to believe that a considerable change has come over the West in this respect. Why? Because they are witnessing the establishment of more factories in their midst, and it has become a settled policy of the Association to encourage in every way in their power the opening of establishments in the West. If any person be doubtful of the present or future prospects of manufacturing in Canada,



Mr. F. B. McCURDY, M.P.
Halifax

I would advise a visit to the Canadian National Exhibition at Toronto, which has just closed. Here will be found gathered together, each year, and placing before the Canadian people for their approval, as it were, the results of our present tariff policy, and I think those of you who have visited that great Exhibition, which has no equal on the continent, will agree with me in pronouncing it conclusive evidence of the progress of manufacturing, and the desirability of continuing present policy.

The Interest of the West in the East.

A moment ago I referred to the position of the East and the West in regard to tariff matters, and to the difficulty which the Government of Canada, for the past ten years, has been confronted with. For anybody to speak of the East and West of Canada in any way, other than in geographical terms, is ridiculous. Insofar as trade and commerce is concerned, there is no East and West in Canada. The West has been made by the East, and the East is new benefiting by the prosperity of the West. The immense development of our Western country would not have been possible, and could not have taken place in the limited space of time in which it has taken place, were it not for the firm foundation of credit which has already been established by our Eastern Provinces.

Huge Expenditures on Canadian Pacific.

Reference to the annual report of the Canadian Pacific Railway for the year ending June 30th last, which was published a few days ago, discloses the fact that since the year 1909, which may be described as the last year in which a halt was made and the country took a breathing spell, this railroad has expended some $200,000,000 on capital account, and the operating revenue has increased from $76,000,000 to $139,000,000 per annum. From these figures it may be readily seen that the Canadian Pacific Railway is alive to the fact that a great expansion is going on, and the huge expenditure upon capital account, to which reference has been made, is opening up large territories in the West for new settlers, and also improving the facilities for handling traffic in the older parts of the country. The figures for revenue account show that the expansion of traffic and business generally during the forward movement since 1909 to date has been very great. We all know that the Canadian Pacific Railway, as managed by Sir Thomas Shaughnessy and the staff of officials under him, is run on purely business lines, so that we may be quite sure that this report accurately reflects the true condition of trade and commerce.

The Demand of the Newcomers.

The rapid expansion of the whole country, and especially of the West, during the past few years, has called for a very great expenditure on capital account. People have been coming into the country at the rate of 400,000 per annum, and this places a burden upon a new country which it is difficult to handle. It means from the very moment that these people enter Canada it is necessary for the country to supply them with all the necessities of modern life, including housing accommodation, so that the capacity of our cities and towns, of the West especially, have been taxed to the utmost, and it has been necessary for them to make large expenditures in the way of new streets, sewers, sidewalks, etc., so that houses may be built and sanitary conditions observed if these people were to be kept in the country.

The Borrowing in Canada Justified.

Probably no subject has been so thoroughly discussed during the last few months as the financial stringency which the country has been passing through. This has been occasioned, as far as Canada is concerned, largely because of the fact that she has had to expand so rapidly, making it necessary for her, as a country, and for her railroads and municipalities, towns and cities, to borrow very largely in Great Britain and elsewhere. For the most part I think I may say that this borrowing has been amply justified, and the money thus obtained well spent and honestly invested, so that we may look for it to produce the results it was intended to produce. No doubt there are cases where cities and towns have strained their borrowing powers and have been eager to grow more rapidly than the circumstances of their position and surroundings warranted. Reports, however, of those who have just returned from the West, and whom I have interviewed in the past few days, including the heads of our great railroads and banks, agree that over-expansion has been the exception rather than the rule, and that much of the wild-catting which has been going on in real estate and other directions is now

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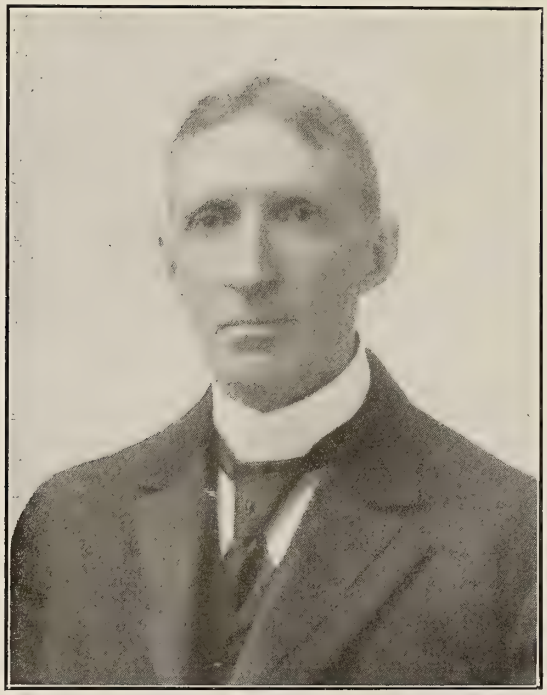
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stopped. The head of our largest bank, in an interview published in the *Montreal Gazette* of the 12th inst., states that he has come back more impressed than ever with the possibilities of our Western country, and he cannot help being an optimist in regard to the future of this vast country. We know, also, that the crop is practically assured, and that that period of uncertainty in this respect which causes the whole country so much anxiety is now past for this year.

The West Financed by High Credit of the East.

Up to the present time the high standing of this country in the markets of the world has made is possible to borrow on the most advantageous terms, and the enormous sums which have come here have been procured by our railroads and municipalities at rates which, when compared with the rates paid by the United States and other countries, show a tremendous saving for this country. The point I would like



MR. F. BLIGH
Mayor of Halifax

to make clear is this, that our North West, which has had the benefit of a greater part of this money, although a new country, has been financed because of the high credit and standing of the older Provinces on a most conservative basis. When one goes through the West and sees the splendid buildings which the railroads and banks are putting up in cities like Winnipeg, Calgary, Edmonton and Vancouver, and, in fact, all the principal cities of the West, it must be apparent that a very large proportion of new money coming this way is being invested there, and that whatever work is being done is being well done, and with a view to the future requirements of the country. We have had to put up with the most inadequate railroad terminals in Montreal for many years, and still have to put up with them, but in the West they must be all up-to-date. I merely make these statements to show that there should be no cause for complaint as between the East and West.

Break Down Barriers Dividing the Country.

So much for past and present conditions. What of the future, and what the Association can do to further the interests of the manufacturers and the country? Let us, as members of this great organization, strive to make the coming year one of the landmarks in the history of the organization by adding to our membership and increasing the dignity and influence of the Association. Let us strive for a united Canada, building up all those institutions which make for strength and solidity, both of Canada and the Empire.

Let us encourage all legislation, either Provincial or Dominion, which tends to break down the barriers between Provinces, between the East and West, between employers and workmen, and between races and religions.

Let us discourage all political tactics which are of a selfish nature or an opportunist character.

Finally, let us, as occasion presents itself, lend our whole weight and influence not only individually, but collectively, to all efforts which have for their object the consolidation and protection of the great Empire of which we form a part, never forgetting that it has reached its present position of glory and power by the efforts of those pioneers who went out into the farthest parts of the world during the conturies which have passed, and thus planted the Union Jack in every part of the world.

WHY FINISHED STONE ENTERS CANADA.

Mr. John Quinlan, of Montreal, states his belief in the following letter why finished cut stone is imported into Canada:

"There are two reasons why so much cut stone is imported into Canada in a finished state: American railroads and the lack of protection for this industry.

"Here in Canada we are obliged to import our raw material from the U.S.A. or Europe, the freight is paid so much per 100 lbs. Finished cut stone weighs at least 25 per cent. less than the raw material. The railroads charge the same price per 100 lbs. whether it is rough of cut stone, so that the manufacturer who has his plant at the quarry where the raw material is found has the advantage of 25 per cent. less freight to pay, which in itself is a very fair profit. In addition to this he has cheaper labor, coal, taxes and rent to pay, and by dumping his surplus here does not injure the home market. You may well inquire, have we not material right here in Canada equal to any which can be imported. We have, but in order to produce this material from the quarry as cheaply as it is done in the U.S.A. it will require a lot of capital, and an assurance of at least a home market. The capital is here, but the only way to get an assurance of the home market is for the Government to give us a tariff similar to the McKinley tariff, which has done so much to develop this industry in the U.S.A. As the matter stands at present the American railroads make the freight rate on stone coming into Canada and favors the American manufacturer at the rate of 25 per cent. The Canadian Government compels the Canadian manufacturer to pay from 27 to 35 per cent. duty on machinery we import to manufacture this stone with, and allows the manufactured stone in almost free. I trust you will see by these facts the reason so much manufactured stone is coming into Canada."

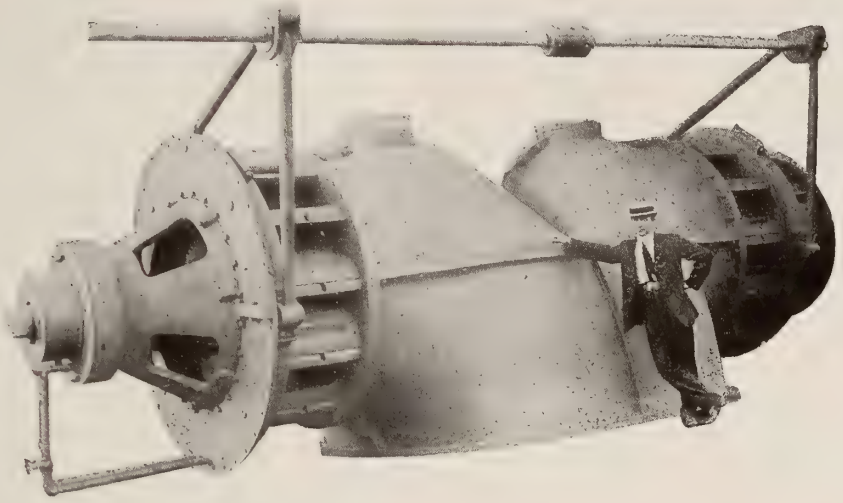
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POLES AND CROSS TIES USED IN CANADA DURING 1912.

There were 608,556 wooden poles reported as having been purchased in Canada in 1912, according to a recent report of the Forestry Department. This number is an actual increase of 22,853 poles, or 3.9 per cent. increase over the figures for 1911. While this increase is slight, it follows a decided decrease from 1910 to 1911. The average pole has a life of at least ten years, and the demand for poles is, therefore, more or less intermittent, depending on the building of new pole-lines.

Altogether nine kinds of wood were reported for poles in 1912, with Eastern cedar heading the list as in past years. Cedar has been and probably will be for some time, the most popular wood for telegraph, telephone, and other pole-lines, although the purchases in 1912 show a decrease. Wood for this purpose need not be especially strong or hard, as there is little or no mechanical strain to be endured. Durability in contact with the soil, lightness and a slender tapering form are most essential, and cedar seems to fit those requirements better than any other native wood used in an untreated state.

The use of the British Columbia species of cedar has increased in the last few years with the decrease in the supply of poles of the Eastern species in the greater length classes. While these poles are not so strong or so durable as those of Eastern cedar, they can be obtained in greater lengths, and the source of supply is more easily accessible. The two species of cedar together formed over 85 per cent. of the total.

Balsam fir was reported for the first time in 1912. This wood is being used more and more each year for all purposes, especially in the Maritime Provinces, where the supply of pine is beginning to fall below the demand. As far as form and lightness are concerned, this species should make excellent pole material if its lack of durability were made up for by some preservative treatment. Increases are to be noted in the use of Western cedar, tamarack, spruce, and chestnut, with balsam fir added to the list; and decreases in the use of Eastern cedar, jack pine, Douglas fir and hemlock. No poles were reported in 1912 of red, white or yellow pine.

The statistics are based on reports received from 207 telephone companies, 131 electric light and power concerns, 29 electric railways, 18 steam railways (operating telegraph and telephone lines) and 4 telegraph companies. These 389 companies reporting purchases in 1912 represent at least 95 per cent. of the wooden-pole users in Canada, and the figures include at least 95 per cent. of the poles purchased in 1912.

Pole-users are divided into two groups, with steam railways, telephone and telegraph companies forming one group, and electric railway, power and light companies the other.

Big Increase of Cross Ties.

There was purchased in Canada in 1912 a total of 21,308,571 cross-ties; this was an increase in actual numbers of 6,919,347, or a 48.1 per cent. increase over 1911. This increase took place on almost all the railways in Canada, and was especially noticeable on transcontinental lines.

Nineteen different kinds of wood were used, with jack pine still leading. The use of each material increased from 1911 with the exception of Eastern spruce and red pine. Balsam fir and Western spruce were added to the list of woods used in 1911, and popular and black ash were dropped.

The above statistics were based on reports received from 51 steam railways and 36 electric railways operating in Canada in 1912.

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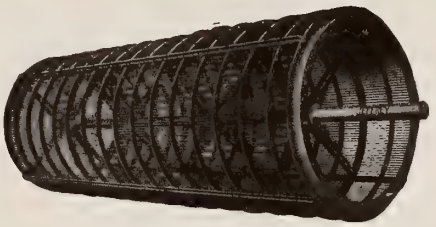
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MODERN LIGHTING IN LARGE FACTORIES.

Can Standards Be Created?

Manufacturers generally will await with considerable interest the decision of the Home Office Committee on Factory Lighting as to whether it is really possible to create a standard, or standards, of lighting to which employers can be called upon to conform. That the care expended in watching the eyesight of the children, the potential workers of succeeding generations, is brought to nought by the inadequate provision of light in the workshops to which they ultimately gravitate is repeatedly asserted, and it is a statement of that plausible variety which appeals to the general public. Manufacturers themselves will, however, be inclined to smile, for whilst such assertions imply a lack of humanity on their part, they also imply very clearly that those who make them have not grasped an elementary principle of manufacture. No one pretends that there are not cases where more and perhaps a different style of light would be advantageous, but, broadly speaking, it is well recognized that the employer himself is the first to suffer from defective lighting, as he cannot expect that the worker, so handicapped, can produce his best work. There seems to be a tendency to confuse this question of inadequate lighting with the effects upon eyesight of manufacturing processes themselves. No amount of light would, for instance, prevent the work of a watchmaker, or of a proof-reader, from becoming trying to the sight, and a very careful distinction must, therefore, be drawn between the harmful effect of the work itself and that which is the result of insufficient light. The problem of setting up standards of light for the workshops of the whole country, in which a thousand varying manufacturing processes are carried on, is further complicated, not only by possible difficulties in obtaining the most appropriate variety of light—gas, electricity, acetylene, or otherwise—but by the tastes, perhaps instinctive requirements would express the point better, of the individual workers. Then, again, the actual material worked is itself, in some cases, a cause of trouble; metal at white heat, the glare from a large furnace—these must, apart from any heat effects, have considerable bearing on the question of eyesight. There is a question which we should like to put to those interested in this matter. Is not the rapid degeneration of the eyesight of the nation more attributable to excessive light than to deficient light? Can it not be demonstrated that the eyes of our forbears were on the whole much more normal than our own? And tallow candles were the only means of illumination, or oil lamps of a kind that the poorest would not tolerate to-day. Most men, nawadays, abominate brilliant light and the reason seems plain. Let us not be misunderstood in this matter; if there is room for improvement in factory lighting generally, by all means let something be done. It will be well to move warily, however, for it would probably be exceedingly difficult to prove that, as a general rule, factories are insufficiently lighted and that the whole subject has any very appreciable relation to the problem of national eyesight.—*London Chamber of Commerce Journal.*

O'Brien, Doughny, Quinlan and Robertson, the contractors for Section No 3, the principal section on the new Welland Ship Canal, the cost of which is to be some ten million dollars, are opening offices in the building on Chappell Street, Welland, formerly owned by the Calcott Estate, but recently taken over by the Dominion Government on account of being on the canal right-of-way. Three steam shovels are now at work preparing the cut to which the Grand Trunk Railway Co.'s tracks will be removed, as the present line of the railway is where the canal will be. The Grand Trunk station here will be removed farther south in the town.

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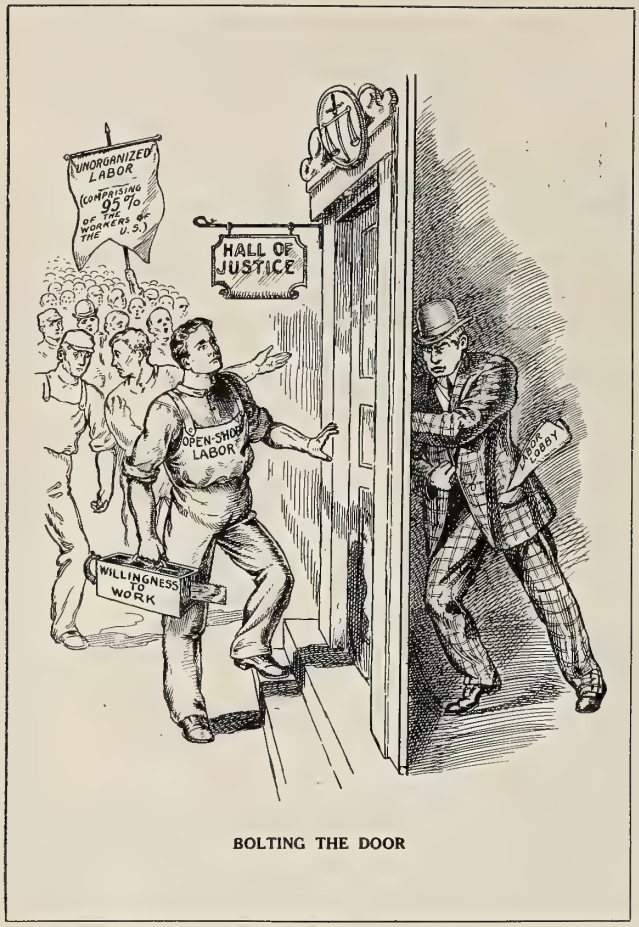
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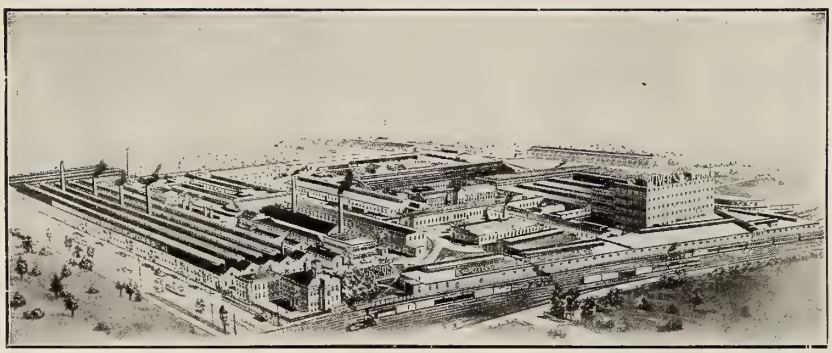
BOLTING THE DOOR

CANADIAN RAIL PRODUCTION.

Years.	Gross tons.
1895	600
1896	600
1897	500
1898	600
1899	835
1900	700
1901	891
1902	33,950
1903	1,243
1904	36,216
1905	178,885
1906	312,877
1907	311,461
1908	268,692
1909	344,830
1910	366,465
1911	360,547
1912	423,885

Might Directories, Limited are building an addition at the back of their present building, 74 and 76 Church Street, Toronto. Five stories are now being erected on a foundation laid to carry ten stories, and it is estimated that two or three years more will demand a further increase in the size of the plant.

The five stories will be devoted entirely to advertising-by-mail. The entire completion of the new addition is expected before the end of the present year and it is hoped that the first floor will be ready for occupation by November 15th.



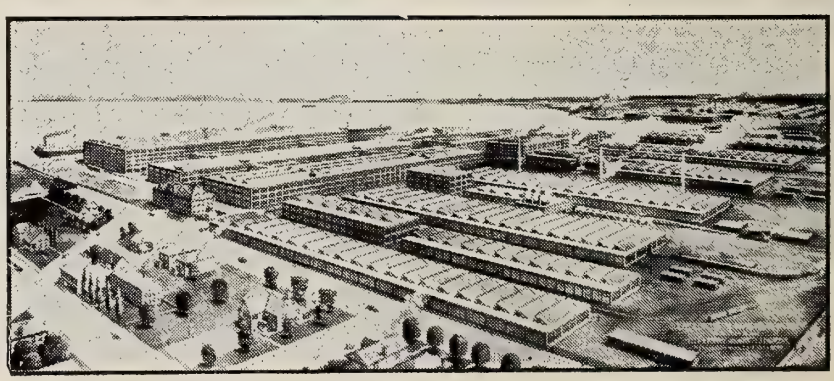
OLIVER CHILLED PLOW WORKS, SOUTH BEND, IND.

Manufacturers
of the
largest,
most complete
and
Up-to-date plow line
in the
British Empire

Oliver Chilled Plow Works of Canada, Limited

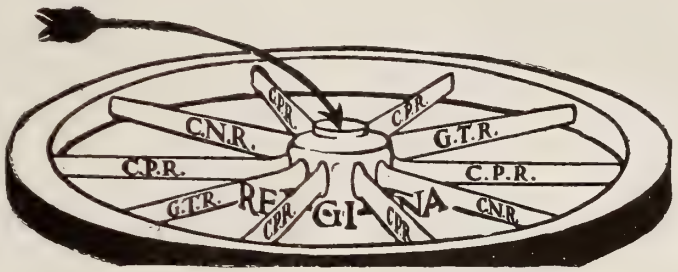
GENERAL SALES AGENTS:

International Harvester Company of Canada, Ltd.



OLIVER CHILLED PLOW WORKS, HAMILTON, ONT., CANADA

Regina's Railway Lines



LOOK!

While the financial stringency has affected some cities to a large extent,

Regina, Sask.

has been favored. As the City is essentially a manufacturing and wholesale centre of considerable magnitude, the business controlled from this centre of industrial activity, compares very favorably with that of last year. Bank clearings are ahead of last year. **Watch our bank clearings.** They tell the tale of industrial activity at the Saskatchewan capital City---Regina. Regina's Debentures, Five Per Cents., sold at 101 and were fully subscribed.

The City of Regina Offers

not only cheap sites for factories and warehouses---sites at a small percentage of value---but also excellent opportunities for good business. Twelve railways radiate from the city now. Bonds have been guaranteed by the Provincial Government for ten additional lines. Mr. Manufacturer, study these facts, then decide for yourself whether or not Regina offers the advantages you desire.

FOR FURTHER PARTICULARS WRITE

L. T. McDonald, Commissioner, Board of Trade, Regina, Saskatchewan

APPOINTING FIRE MARSHALS.

THAT some members of the Association are impressed with the necessity of appointing fire marshals in the various Provinces of Canada was illustrated by the discussion on fire prevention which took place at the Halifax Convention at the conclusion of the report of the Insurance Department, which appears in full elsewhere in this issue.

"I am glad that the members of the committee have been active in promoting the appointment of fire marshals," said Mr. E. G. Henderson, of Windsor, "and I do not think that much reduction in the rates can be looked for until every Province has followed the example of Quebec in that respect. When they do so I think we will see a large reduction in the amount of losses by fire.

"The members of the Association should use their influence with the different representatives, especially in Ontario, to have this fire marshal matter settled," said Mr. W. H. Shapley, of Toronto. "The Association for the prevention of fires are concentrating their efforts on this matter, because we believe that the appointment of fire marshals will be the first step in reducing losses. If we use our influence with the representatives in the Ontario Legislature I believe that fire marshals will be appointed at the next session. The question of fire prevention is one of the most serious that we have to contend with, and I trust that all members of the Association will do what they can to improve the condition. The situation at the present time is a shameful one. We are leading the world in our waste by fire, and we should do something to relieve ourselves of this reproach. This can be done if everyone will only put forth some effort."

Mr. Ross, of Montreal, said: "In reference to this question of fire prevention, I want to lay stress on two things. It is of the utmost importance that everyone interested in manufactures, and particularly the owners or managers of our establishments, should not only depend on the appointment of fire marshals, but that they should make it their own business to see that fires are prevented by putting a stop to smoking in their establishments. I consider that to permit smoking in our establishments, especially of cigarettes, is nothing short of a crime. The second point that I wish to make is with reference to the disposal of rubbish. I have inspected factories all over the country, and in many Canadian factories I have found rubbish allowed to accumulate to an extent that is criminal. These two things are responsible, in my opinion, for 75 per cent. of the fires, if not more, that we have in the West."

Alderman Saddler, of Montreal, talked plainly on the subject of smoking. "Personally I take strong ground against the practice of smoking in factories," he said. "In one large establishment I had occasion to go to see the head of the concern, who was a personal friend of mine, and while I was waiting one of the staff came running upstairs with a lighted cigarette in his hand. He went into the office among the clerks with the cigarette in his mouth, and as he went down stairs again he probably knocked the end of it off. If you make a law on this subject you must make it apply to everyone in the establishment. I don't want anyone to come into my office with a pipe or a cigar in his mouth, and I don't want anyone to come in to do business and find one of my clerks with a pipe or a cigar in his mouth. With respect to the accumulation of rubbish, I am always at the foreman to insist upon cleanliness."

"If any establishment wishes to put in sprinklers," remarked Mr. Rutherford, of Montreal, "the Insurance Department of the Association will be glad to see that there is no overcharge."

In dealing with the sprinkler question, President Gourlay said: "The Insurance Department are willing to inspect and furnish plans for the installation of the system, and in doing so will give expert advice free of charge, and will furnish specifications upon which tenders can be taken. If you ask for tenders from a company they have to inspect and prepare plans, some of which will not be accepted, and it will cost more than if you first get your plans from the experts of the Association and then ask for tenders."

DEATH OF MR. WAUGH.

William Waugh died in October at his residence, 35 Aberdeen Avenue, Westmount. He was born in Sutherlandshire, Scotland, 67 years ago, and when 17 years old came to Canada, settling in Montreal.

First associated with Gerald Lomer & Co., he later entered the employ of Greenshields & Co., leaving this latter firm to join that of Silverman, Boulter & Co. Upon the death of Mr. Silverman in 1904, he formed the firm of Boulter, Waugh & Co., Limited, manufacturers of furs, hats and caps, in which concern he held the position of vice-president.

In 1880 he was married to Miss Adelaide Jeanette June, of Fremont, Ohio, who survives him with two sons and two daughters. The sons are Dr. Oliver T. Waugh, of Winnipeg, and William R., of Montreal. The daughters are Mrs. Ernest E. Palmer, of Toronto, and Miss Marion J. Waugh, of Montreal.

Mr. Waugh was a Freemason, a life member of the M.A.A.A., a member of the Canada Club, and Executive Committee of the Montreal Branch of the Canadian Manufacturers Association for the past three years. He was also a member of the Board of Trade and a trustee of Erskine Church.

MINERAL PRODUCTION OF CANADA

During the Calendar Year 1912.

Canada's progress and growth in industrial development is strongly reflected in the statistical record of her mineral production. An annual record has been published since 1886, in excess of ten million dollars, or $2.23 per capita of population. In 1912 the value of the production, according to revised statistics now completed, was $135,048,296, or nearly $19 per capita, the preliminary record published in March last showing a value of $133,127,489 having been exceeded by nearly two million dollars.

Comparing last year's production with that of the years immediately preceding we find an increase over the 1911 value of output of $31,827,302, or 30.8 per cent. It will be remembered, however that the mineral output in 1911 was somewhat restricted owing to long extended labor disputes in the coal mines of Alberta and British Columbia, and was less than that of 1910, in which year the production was valued at $106,823,623, or $14.93 per capita, and the highest record up to that year. Compared with 1910, the production in 1912 still shows an increase in total value of $28,224,673, or 26.5 per cent., and an increase in per capita production from $14.93 accommodation, so that the capacity of our cities and towns to $18.27, or 22.3 per cent.

NEW FACTORY AT STRATFORD.

Stratford is to have a new industry in the near future in the form of a paper-box factory which will supply the large demand of the different knitting factories, which spend $20,000 to $25,000 a year in paper boxes alone. Mr. George Whitesides of Toronto is bringing the business to Stratford. He has secured a building and purchased machinery, and will begin operations within a few weeks.



ANALYSIS

: : : OF : : :

St. Lawrence Granulated Sugar

THE STANDARD OF PURITY

Laboratory of Provincial Government Analyst

Montreal, 22nd February, 1909.

I Hereby Certify that I have drawn by my own hand ten samples of **St. Lawrence Extra Standard Granulated Sugar,** indiscriminately taken from four lots of about 150 barrels each and six lots of about 450 bags each. I have analyzed same and find them uniformly to contain 99-99/100 to 100 per cent. of pure cane sugar, with no impurities whatever.

(Signed) **Milton L. Hersey, M.Sc., LL.D.**
Provincial Government Analyst.

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The Finest Table Sugar Ever Produced

St. Lawrence Sugar Refineries, Limited

MONTREAL

CUT GEARS

GEARS

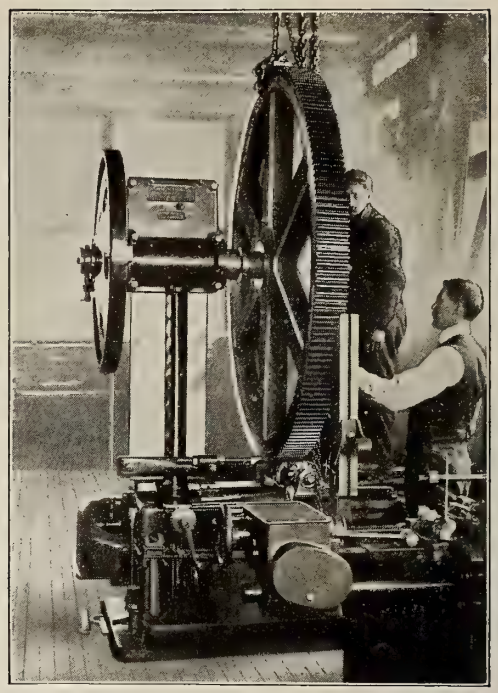
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HEAVY SPUR GEAR

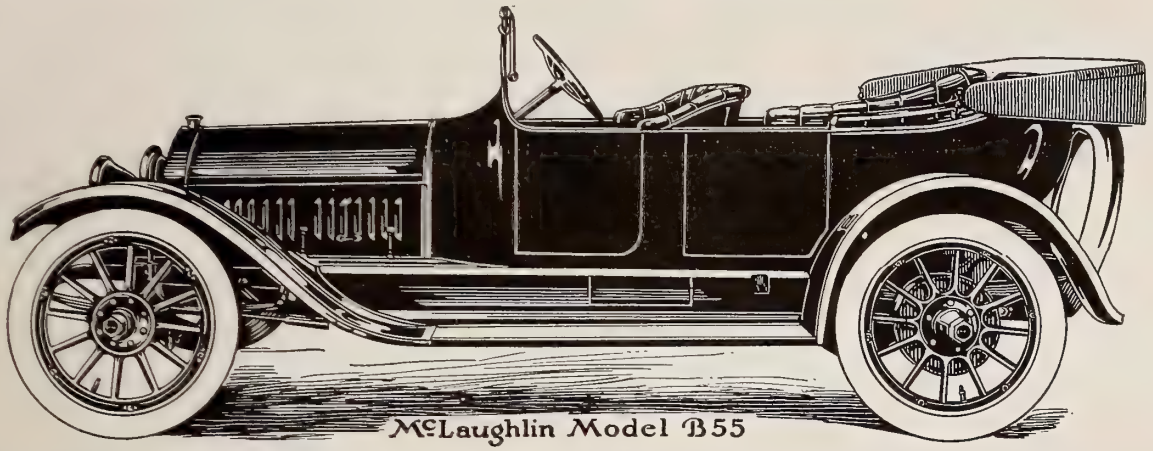
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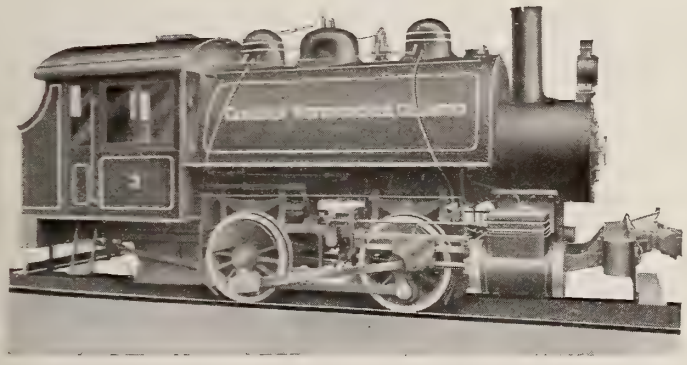
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AN ATTACK MADE UPON CANADIAN AGRICULTURAL IMPLEMENTS

CANADIAN agricultural implements have earned such a high place in the markets of the world that it is with feelings of distinct surprise and regret that we read a letter which appeared recently in the *Journal of Agriculture*, a periodical published in the Province of Quebec. The writer, in attacking Canadian machinery, makes statements which are so misleading and untrue that they cannot be allowed to go unchallenged. The letter follows:

Editor, *Journal of Agriculture.*
Macdonald College, Que.

Dear Sir,—Will you kindly give me a little space in order that I may criticize the agricultural machinery in use in Canada to-day.

Now, sir, in my opinion there are no people in Canada humbugged as badly as is the farmer. We are forced to pay about 25 per cent. more for our agricultural machinery than does the American farmer, and we get a very inferior article. Even the same machine that is manufactured in the United States when made in Canada is BUTCHERED through slovenly manufacture. Our machinery as it is to-day, in most cases, is a splendid patent, ruined by inferior manufacture, owing to GREED on the part of our machinery combine.

I contend that we have not a machine fit to put into the field. Take the binder, an indispensable machine. When properly made it is a pleasure to run, but to-day ours is ramshackle. The pole on that heavy machine is soft wood, because it is five cents cheaper than hardwood. The hitch to the machine itself is so slim that it sways from side to side and makes it hard to draw or manage, and the needle is put on so badly that it misses about 10 per cent. The rods that hold the frame together between the aprons are too small, bend like hay wire, and allow the pressure to come upon the hard wood rollers until they bury themselves in the frame. At the time of manufacture it would cost perhaps three cents more to put in a half-inch rod which would materially strengthen the machine, and would not make too big a hole in the DIVIDENDS. The principal bolts holding on the frame are in many cases too small, with no lock nuts. These are getting loose constantly, and when they have to be tightened the heads are either round or put in such a way that they cannot be tightened.

Many times after starting a new machine, after thoroughly oiling and going a few times around, a box will heat, and only this spring I found the cause to be in four cases that the oil holes had not been cleaned out and were full of casting sand. The same will pertain to all classes of Canadian-made machinery. The combine is looking for dividends only, and as long as it is our privilege to give them protection, we have the privilege to criticize.

The neckyokes on all the machines are too small, and if used will ruin the horses.

The whiffletree is only long enough for a Shetland pony, and if used with our large draft horses will crowd them to the pole and will wear their legs, and is positively dangerous. I am obliged with my horses to take off both whiffletree and neckyoke. There is no sense in the farmer putting up with this hold-up, as he is the man that pays the dividend, and the man that pays the protection.

The Eastern Agricultural Association, that holds its annual fair in Sherbrooke, have from time to time invited the agricultural implement manufacturers to exhibit, and they, since the combine, have always refused to do so. They say in one letter that owing to a friendly agreement they cannot exhibit. Now, I think that is going a little too far for a company or companies who are looking to the farming public for a charitable handout of about 25 per cent. annually, not to come and exhibit at the Fairs. I feel that there is some other reason, and that it is because they are making such a cheaply gotten-up machine at the present time that they do not want it to come under the limelight.

Sincerely yours,
J. H. M. PARKER,
Willowdale Farm, Lennoxville, Que.

Some time ago the United States Government conducted an investigation into the prices paid for binders in foreign countries and published the results in "Daily Consular and Trade Reports," which are issued officially from Washington.

These reports show that, while the American farmer was buying the 6-foot self-binder for about $125, the same machine was sold in Great Britain for $135.16, in France for $173.70, in Germany for $203, in Denmark for $167.50, in Sweden for $160.80, in South Russia for $168.95, in North Russia for $180.25, and in West Siberia for $187.98. So, also, as to reapers, mowers and rakes. Furthermore, the wholesale price charged and received by the American manufacturer was greater on the exported machines.

The Massey-Harris Company will sell to Mr. Parker a six-foot cut binder for $127, payable in October following his purchase, delivered at his own station, and set up ready for use. Yet Mr. Parker says "we are forced to pay 25 per cent. more for our agricultural machinery than does the American farmer." The above figures show the inaccuracy of his statement, and also how much advantage he has over the farmers in the countries mentioned other than the United States.

The writer then makes a sweeping attack upon Canadian binders. "We have not a binder fit to put in the field," he says. If this is true, how will he answer the statement that a Massey-Harris binder sells in Great Britain for £2 more than the price paid for any other good binder, and £5 more than the best price paid for any other good binder in Australia? Or, how does Mr. Parker explain away the fact that the International Harvester Company and the Massey-Harris Company make about 90 per cent. of all the binders sold in the world? If Canadian binders are so poor, how can the Massey-Harris Company sell binders in every grain-growing country in the world, and why is the export trade of that company greater than its domestic trade? Foreigners seem to be more appreciative of Canadian-made goods than Mr. Parker, who probably calls himself a Canadian.

We do not hesitate to say that the farm machinery manufactured by Noxon Company, Limited, of Ingersoll; David Maxwell & Sons, of St. Mary's; the Frost & Wood Company, Limited, Smith's Falls, and the Massey-Harris Company, Toronto, will stand comparison with any agricultural machinery manufactured in the world, and the Canadian farmers who have used it for years will support this statement.

We would also like to have Mr. Parker furnish the International Harvester Company, of Hamilton, with the proof that "the same machine that is made in the United States is butchered in Canada through slovenly manufacture." The machinery manufactured by the Canadian branch of this United States firm is of the same quality as that manufactured in the United States.

It is generally admitted that Canadian factories have done more than their share in perfecting inventions and processes

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which have improved and cheapened agricultural implements.

Mr. Parker speaks slightingly of the Canadian binder pole as a "soft wood," used because "it is five cents cheaper." Answering the second charge first, we have authority in saying that southern pine, from which binder poles are made, is not so cheap as maple. Also, authorities in mechanical engineering and construction classify southern pine among the hard woods.

We hesitate to teach a farmer something about woods, but we would like Mr. Parker to examine the following tests from the official records of the Massey-Harris Company if he wants to know the real reason why southern pine was selected.

The question of cost does not enter. The object is to get the most suitable wood. In making tests the company places a pole horizontally on two upright blocks 5½ feet apart. Loads are then placed in the centre of the pole and the distance it bends is measured. The following figures show the superior strength of southern pine over oak, which even Mr. Parker would not despise as a "hard" wood:

Southern Pine.

Deflection.	Load.
1 inch	3,450 lbs.
2 inches	5,080 lbs.
2⅜ inches	5,300 lbs.

At this point pole broke.

Oak Pole.

Deflection.	Load.
1 inch	1,360 lbs.
2 inches	2,140 lbs.
3¼ inches	2,580 lbs.

At this point the pole broke.

In brief, the southern pine pole bent only 2⅜ inches under a weight of 5,300 pounds, while the oak pole bent 3¼ inches under a weight of only 2,580 pounds.

As the pull on a binder pole is strong, the tensile strength of the wood of which the pole is made should be great. "Mechanics of Materials," by Merriam, gives the following table, which shows the relative tensile strength and weight of southern pine:

Wood.	Weight lbs. per c. ft.	Tensile strength.
Hemlock	25	8,000
White pine	27	8,000
Chestnut	40	12,000
Red oak	42	9,000
Southern pine	45	15,000
White oak	48	12,000

Mr. Parker's other statements are so wild that we will merely blanket them with the following general statement of the methods used by the manufacturers of binders: Every binder attachment sent out is tested at high, moderate and low rates of speed. Each knotter ties a certain number of knots before it is attached to the machine. Every machine is tested in every part. Every melt of iron is tested at the beginning, middle and end of the melt. Tests are made for breaking strain; chemical tests are also made. Pig iron on delivery, coke and steel are tested. All parts of machines which have gearing are run off under power at high and regular rates of speed. Then a special inspector goes over the parts. Lastly, an agent sets the binder up for the farmer who purchases it. Neckyokes and whiffletrees are made to a standard as wide as it is possible to have them in order to get a full cut and to keep the horse next to grain out of the grain.

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THE MOVEMENT OF RURAL POPULATION IN EASTERN CANADA

ITS CAUSES, ITS EFFECTS, ITS REMEDIES

By C. K. MORRISON

NOTE—This Article is From an Essay, Written by Mr. Morrison, Which Won the Industrial Canada Scholarship, Awarded to Students of McGill University

FOR the last ten or twenty years all eyes have been turned on the Canadian West. It has so absorbed the time and thought of Canadian statesmen that the far richer agricultural resources of the East have been almost entirely neglected, or, if any attention has been paid to them at all, any effort on the part of the government to develop them has been haphazard and spasmodic. If the political thesis is a correct one, that a sturdy rural population with which to "replenish the stock and improve the breed of the dwellers in large cities," is necessary to national efficiency, the sooner Canadian statesmen turn more of their attention from the enthralling diversion of using the farm-lands of the West as a "melting-pot" for the hundred and one nationalities of Europe and Asia, to an intelligent consideration of the rural depopulation of the Eastern Provinces, the better it will be for Canada's development as a nation.

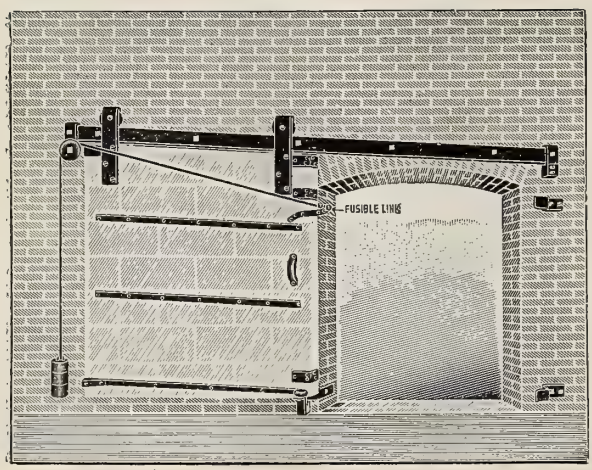
Resources of the East.

Before discussing the movement of population in Eastern Canada I will first give a brief survey of the country, showing roughly the situation of its resources, the general distribution of its population, and the prospect of its future development along rural lines.

One has just to look at a map of Eastern Canada, colored to show the density of population, to realize how comparatively young and still unsettled even the older parts of Canada really are. The virgin forest has been cleared from the Ontario peninsula and from a narrow strip of land north of the St. Lawrence River, tapering from about one hundred miles north of Lake Ontario to three or four miles north of Quebec. South of the St. Lawrence, except for the large cleared farming-districts of the Eastern Townships, there is only a strip of cleared land, about twenty or fifty miles wide, around the frontiers and coast lines of the Eastern Provinces.

Thus it will be seen that the population of Eastern Canada is confined largely to a narrow strip of land bordering the Great Lakes, the St. Lawrence River, and its gulf, and the Atlantic Ocean.

The resources of the Eastern Provinces are immense, and developed as yet only to a very small degree. Southern Ontario has long led the provinces as an agricultural, dairying, and stock-producing country. The Niagara district has almost unlimited potentialities for fruit-growing. Only in 1901 were the vast resources of Northern Ontario discovered. The Eastern part of this district is as good for agricultural pur-



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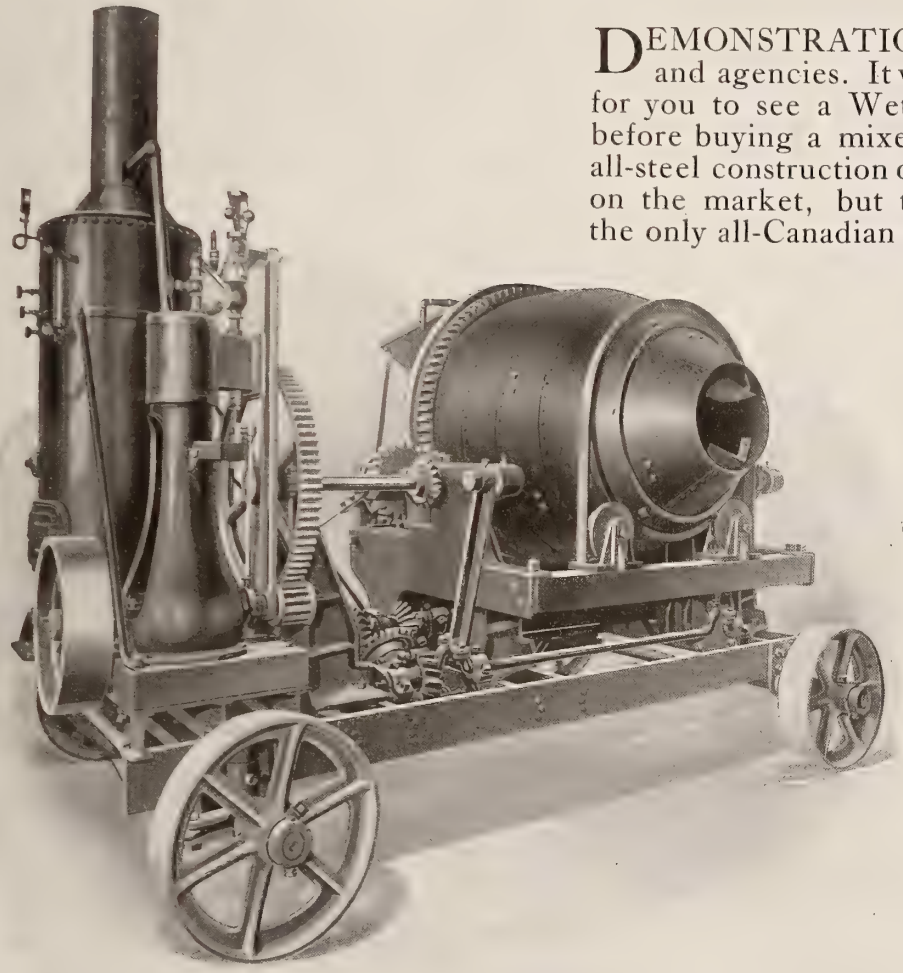
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poses as any part of the continent. Its extent is almost three-quarters that of all Southern Ontario. The vast forest that extends over the west of this offers almost illimitable resources in spruce, jack pine, poplar, and pulpwood. It is estimated that there are 288,000,000 cords of pulpwood ready to be felled.

The most thickly settled part of Quebec is the Eastern Townships. This is one of the best dairying districts on the continent. An instance of this superiority is seen in the fact that in the competition for the English market, Quebec cheese is more successful than the product of Ontario or of England herself. Some qualities are sold there as the best English dairy cheese.

Northern Quebec has resources which as yet have only been touched upon. The Hon. W. A. Weir, speaking in Westmount in May, 1908, expressed regret that the capitalists of Montreal had almost completely ignored the great possibilities of their own province, with its vast area and great resources. It was a fallacy to think that the climate rendered unprofitable for farming the northern part of the Province, for reports from farmers about distant Lake Abittibi spoke favorably of the productivity of the land there. The rapid development of the Saguenay and Lake St. John Districts in the last few years shows what the country is good for if there are transportation facilities to open them up.

Speaking of the newly-added Ungava districts of Quebec, the *Canadian Annual Review* says: "It seems very probable that history will repeat itself in this region, and that now unknown resources and riches will unfold themselves for the use of the people in what the year 1911 made the largest Province of Canada."

The Maritime Provinces are much better developed, on the

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whole, than Quebec. However, agriculture here, as all over Canada, is just beginning to be intensive and truly scientific. Although New Brunswick is pretty well cleared and populated in the east, south, and west, there is an area of good, fertile land in the centre of the Province still covered with valuable timber.

Nova Scotia, apart from its agricultural and mineral resources, is famed for the fruits of its Annapolis Valley. Fruit-farming in Nova Scotia has always been an asset of the agriculturalist, but one which has never been fairly developed. Climate, soil, nearness of markets, a line of production which exactly suits the United States' demands—all these the Province has.

Prince Edward Island is developed extensively as far as it can be. Eighty-five per cent. of the land is laid out in farms. Most of the rest is bog or swamp. It is so fertile that it is commonly called the "Garden of Canada." Its rural population is denser than in any other Province. Its equable climate and pleasant scenery have made it one of Canada's most popular health resorts.

Rural Depopulation.

Realizing the natural resources of Eastern Canada to be what they are, one would expect to see a rapid growth of rural population in this young country. But what are the facts? During the last twenty years the total population of the Eastern Provinces, with the exception of Prince Edward Island, has increased considerably, but the increase of rural population has not been proportional. Manufacturing towns have been creating markets for agricultural produce faster than it is provided. What is more surprising is that during the last few years there has been an absolute decrease in rural population in all the Eastern Provinces. The following table explains itself:

—	Total Population, 1891.	Total Population, 1911.	Total Increase, 1891-1911.	Increase in Rural Pop., 1891-1911.	Increase in Urban Pop., 1891-1911.	Ratio of Rural to Urban Population in 1891.	Ratio of Rural to Urban Population in 1911.
Ontario.....	2,114,321	2,523,274	408,953	—100,538	509,491	66.8 : 33.2	47.3 : 52.7
Quebec	1,488,535	2,002,712	514,177	43,798	470,379	70.8 : 29.2	51.5 : 48.5
New Brun. ...	321,263	351,889	30,626	—20,020	50,646	80.6 : 19.4	71.7 : 28.3
Nova Scotia ..	450,396	492,338	41,942	—67,193	109,135	78.8 : 21.2	62.1 : 37.9
Pr. Ed. Island.	109,078	93,728	—15,350	—16,065	*715	85.6 : 14.4	84 : 16
East'n Canada	4,483,593	5,463,941	980,348	—159,918	1,140,366	76 5 : 23.5	63.3 : 36.7

* During the last few years there has been an absolute decrease in Urban Population also.

The decrease of rural population in Southern Ontario has been even greater than might be surmised from the above table; for there has been a rapid increase in population in the newly-opened Northern Ontario—an increase of over 100 per cent. in the last ten years. The same may be said to a less degree of Quebec. There has been quite an increase in the rural population in the northern districts.

Its Causes.

Now what is the reason for this decrease in the rural population? This is not a new subject of conjecture. Every year new diagnoses are made by writers of all professions with their corresponding remedies. But as a matter of fact it is a result of very many causes, some important, others less important, all varying in importance in different localities, and not all remediable.

There are several forces draining the rural parts of the Eastern Provinces which are unavoidable; some of them are not altogether objectionable.

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Growth of Manufactures in the East.

Until recently, agriculture was regarded as the industry of paramount interests in the East. Since the birth of the new industries of mining and manufacture, however, Ontario and Quebec have taken rapid strides toward becoming the workshop of Canada. This development, if carried to the extreme, would not, in itself, prevent Canada from becoming a self-sufficient nation; for she will always have a more than necessary supply of agricultural commodities from the West; but it would not be conducive to the nation's efficiency to have the country sharply divided into a manufacturing and commercial East, and an agricultural West. It is doubtful how long this developing of manufacturing industries will continue to drain the country districts. It is possible that after its first rapid strides the equilibrium between city and country population will be maintained. It will be seen that rural depopulation is partly the result of the increasing demand for luxuries and manufactured comforts, etc. Labor is being diverted from the production of necessities to the production of auto cars, architectural palaces, private yachts, gorgeous hotels, pictures, cigars, women's garments. It might be fair to let the farmer thus get a higher price for his commodities; but on the other hand, it is grossly unjust, as long as the poor industrial worker sticks on at the same nominal wage.

Diminution of Rural Industries.

There are two other results of Canada's industrial progress. Cheap transportation is drawing the industrial workers from the country village. Departmental stores in the central cities are underselling country merchants within the radius of hundreds of miles. In many lines the city merchant undersells his country competitor at a rate lower than the latter can buy his goods wholesale. This is only one example; the same thing is true, though perhaps to a less extent, of other trades and industries. Even the blacksmith feels its influence. In fact "the whole tendency of the factory system, combined with the cheapening of transportation rates, is to draw away from the country districts almost all the population not directly engaged in tilling the soil."

Increase of Machinery.

A second result of industrial progress is the competition of farm machinery with the small farmer. The cheapening of machinery and the introduction of new machinery into every phase of farm industry enable the large farmer, with the aid of large capital invested in up-to-date machinery and buildings, and with the aid of three or four laborers, to run a farm of two or three times the acreage of the small farmer, whom he thus displaces, together with his family. The total value of machinery in Ontario has risen from $57,324,130 in 1900, to $81,570,981 in 1911.

The small farmer is thus at a double disadvantage. He has not the capital to invest in expensive money-saving machinery; and he cannot afford to maintain a laborer the whole year round, as it is difficult to supply him with winter work on a small farm. This difficulty, and in many cases, impossibility, to hire help on the farm, is one of the greatest hardships of the farmer. In the harvest season, toiling late and toiling early, he cannot, try as he will, get his crops harvested in good condition, except in very exceptional weather.

Displacement of the Small Farmer.

This displacement of the small farmer and his family by the capitalist farmer, with his complete outfit of machinery and his permanent staff of hired men, has accounted to a certain degree for the depletion of the country population;

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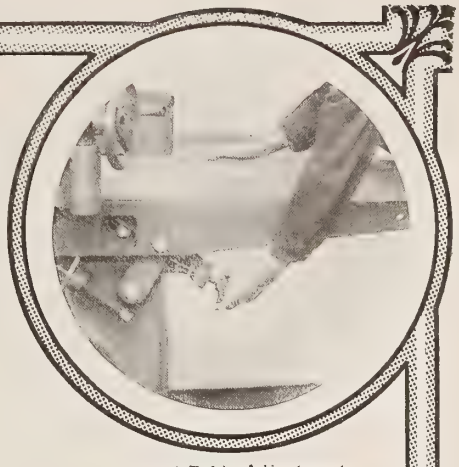
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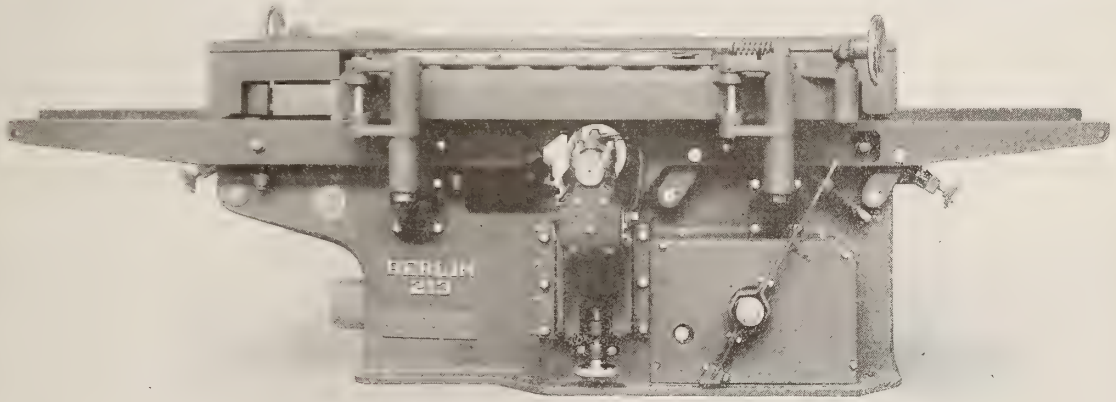
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and it is likely to do so much more if there is no change made in rural economic conditions.

Rush to West.

The migration of the Eastern farmer is in one respect the direct, though probably not intentional, result of the policy of the Dominion Government. No one needs to be informed of the boom of the Western wheat provinces. This is largely the result of the zeal of Canadian statesmen in opening the vast resources of the country. They have not been content to open the gates wide to the motley crowd of the Orient and of Western Europe; they have gone into the highways and by-ways and compelled them to come in. Some of the pamphlets that were meant primarily to be poured over Europe have stuck in the Eastern Provinces, where they have stirred the wanderlust of the young farmers and have drawn them westward, in the hope of making fortunes out of lands which they got for nothing. Some have made them in farming; more have made them in real estate.

At the same time the rich provinces of the East have had no trumpet to sound their praise, save those persons who have discovered their fertility. And as *they* generally do not move away, those provinces are left largely to develop themselves.

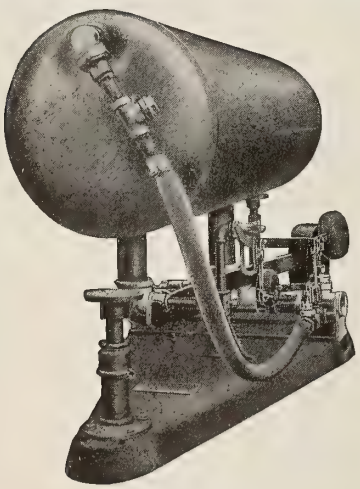
If the Dominion Government would adopt a policy of advertising these provinces among countries where we might expect to get a respectable, intelligent, hard-working, class of immigrants; and at the same time adopt a sane plan of restriction on the inferior class of immigrants, the Eastern farming districts of Canada might be settled by a sturdy race of good British subjects. If no such policy is adopted, it would be better for the provinces to go on as they are. We do not want to have the race problem of Quebec aggravated, or duplicated in the other provinces.

Now we will consider the relations between city and country, which are among the most important factors that cause the exodus from the rural districts and the influx to the city.

On the social side, young people are led to leave the country because of the slowness or absence of social life, and by an ignorant, one-sided view of what they consider the attractions of city life. Let me quote at some length from the *Westminster Review*: "The country boy is always impressed by the tales of the city, and as he listens to them, begins to experience the magic attractions which the accounts of the busy town life always have on those who have never taken part in it." Again: "This is, we believe, the main cause of the rush to the towns. Young men are not so much influenced by long hours, hard work, and the small opportunity of getting on that the country affords, as by the desire to what they call better themselves, that is, not necessarily to get higher wages, but to get more into the thick of life. They are told that in the country they are out of the world, slaves to the soil, not human beings but machines, blindly toiling on, a century behind the time, and so they become discontented and are eager to see the world and its activities from within, to take their share in what is going on and to live. This is what they mean by getting on and rising in life. Other inducements have not so much weight with them; they help to turn the scale, no doubt, between town and country, but the chief influence is the desire to see life. And if this is so, then the great remedy of the rural exodus is to be found in giving the country laborer a better opinion of himself and his work. Make him feel that by remaining in the country he is not the townsman's inferior. As long as he does feel this inferiority he will always be ambitious to leave the soil for the work-shop."

Bad System of Rural Education.

It is this inability to appreciate the advantages of his position, and the tendency to gild the murk and scrambling



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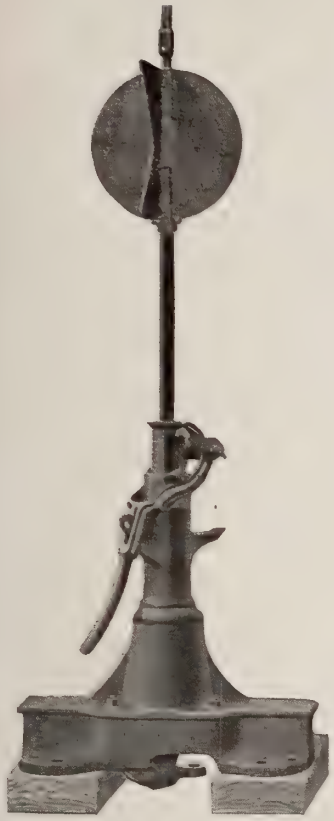
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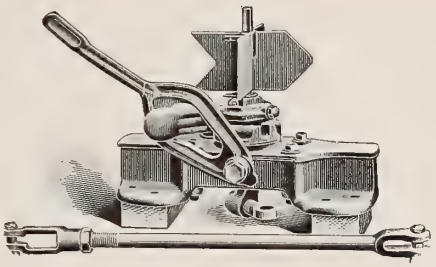


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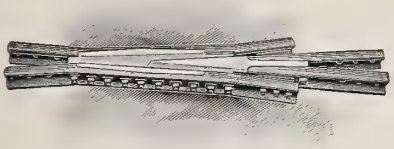


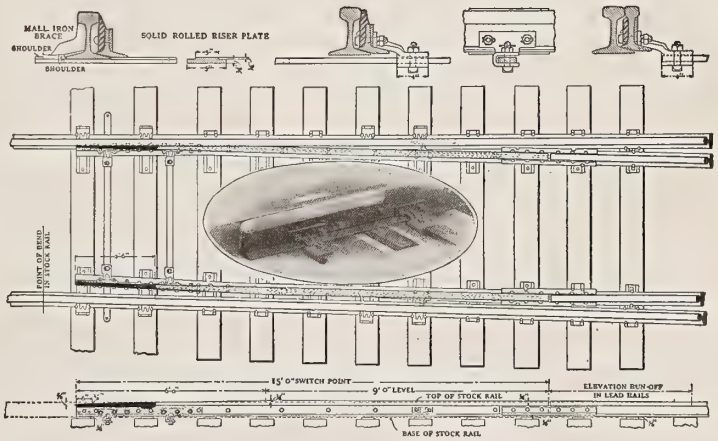
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confusion of the city with bright scenes that get their color from distance, and exist chiefly in his own untutored mind, that is at the root of this migration of the farming population citywards. It is increased by the farmer's inability to enjoy the beauties of nature around him. "The average farmer thinks of a song-bird as something to be shot, and of a mushroom as something which poisons people; and the rural school is to blame for this. Not only should nature study be a part of the course, but the rural school should give such a training to the country child that when he becomes a man he will appreciate the beauty of his surroundings."

Dr. Sinclair, of McDonald College, whom I have just quoted, is a leading authority on rural education in Canada, having made a world-wide study of the subject. He is convinced that the present system of rural education is chiefly to account for rural depopulation. He claims that the country school is dominated by teachers and supervisors who are possessed with the city ideal, and that the general tendency of the school is thus to drive the people to the city as rapidly as possible. "It would be quite wrong to leave the impression, or to teach in the school that farm life can be made such that it will have nothing unpleasant or disagreeable about it. Any one who has dug ditches, driven home from market twenty miles after dark in the pouring rain, pitched barley straw from the rear of the threshing machine, or ploughed a stumpy field with a cantankerous yoke of oxen is not likely to forget that some things about a farm are not pleasant, but none of these things are to be compared with what goes on in the slums of the great cities, nor are they more disagreeable than some of the acts performed by the most distinguished surgeons in the land. My point is that a school should be so conducted as to give a view of rural life which will at any rate not be distorted to the disadvantage of the country. The first qualification of the rural teacher, therefore, must be that she knows the country, loves the country, and desires to spend the rest of her life in the country." "After some study of rural schools and conditions, I believe I am safe in saying that this test would rule out four-fifths of the trained teachers in the rural schools of any English-speaking country in the world."

It will thus be seen that, while in the last twenty years a phenomenal advance has been made in city school education —education in the commercial and industrial arts—the rural school has stood at a standstill and in many ways gone backwards.

Lack of Scientific Methods of Farming.

The country is not merely lacking in this elementary education; the inhabitants of the country sadly lack the scientific knowledge of their distinctive occupation. In order to ascertain the state of agriculture in the Provinces, the Dominion Government, with the assistance of the agricultural colleges, conducted in 1911 a survey of one hundred representative farms in each province. The investigation showed that only about nine per cent. of the farmers of Canada followed any effective and intelligent system of crop rotation.

Lack of Any Commercial Training.

It is not merely in elementary and scientific knowledge that the farmers are backward; they are ignorant of even the first principles of commercial economics. "Farming is virtually the only great series of occupations that is unorganized, unsystematized, unmonopolized, uncontrolled except as it is dominated by natural laws of commerce and the arbitrary limitations by organizations in other business." Thus the farmers are unable to compete on equal terms with outside forces in the commercial and industrial world. For example, the milk dealers in Montreal take the last cent they can get

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from the consumer, but offer such a low price to the producer that the latter often ceases to export to the city, and is as well satisfied and repaid by sending to the local butter or cheese factory. In a similar way, Ontario fruit-growers complain that the transporters take one-third of their gross returns.

Among the many serious drawbacks to farm life are bad roads. The farmer's own short-sightedness prevents him from taking much time from his ordinary farm work to spend on the most important time and money saver—good roads.

Few Advantages of Farmers.

To counterbalance these drawbacks, the farmer's material advantages are not huge. His average profits are not large, and his work is hard. He works as long as, or longer than, the day itself, and he is never free from the fear that at any hour of the twenty-four he may be called out to some unpleasant task.

From the woman's point of view, the chief complaint is the lack of the most ordinary conveniences, and the resulting drudgery of household work. This is being partly relieved in certain country districts of Ontario by the supply of electric power at cost price. This does not merely turn the housewife's washing machine; it also takes the place of the farmer's horse-power, or gasoline engine. The rapid extension of the rural telephone is also helping to relieve the monotony of the country.

Miscellaneous.

Now it is the younger not the older people, who, as a rule, move to the city. An interesting result was obtained by Prof. Bailey, of Cornell University, who sent a circular letter to the students of the University, asking those who had left the farm their reasons for doing so. Out of two hundred and ninety-six reasons offered, the following were the most prominent: Farming does not pay, 62; lack of capital in starting farming, 20: too much hard work, 26; hours too long, 17; the life and work too monotonous, 16; more opportunities for advancement elsewhere, 14; a natural bent elsewhere, 24.

This "natural bent elsewhere," that is, to some other occupation than that which has been followed by the father, is common to boys both of city and country. The "bent," however, hardly ever takes the city boy to the country; while it must, of necessity, take the country youth to the city.

Results of Rural Depopulation.

There are three main results of this rural depopulation. Firstly, it is sending up the cost of living. The gold standard may have a great deal to do with the general rise in prices, and thus cause gross injustice to those whose income does not rise in equal proportion; but a mere reform of the currency and credit system is not going to aid one particle in bringing down the real cost of living; it will not stem the flood of labor from country to city.

The second and third results are bound up in one another; one is the counterpart of the other. They are: the loss to the nation of a sturdy, well-proportioned agricultural class; and the crowding of the population in murky, ill-kept, congested cities.

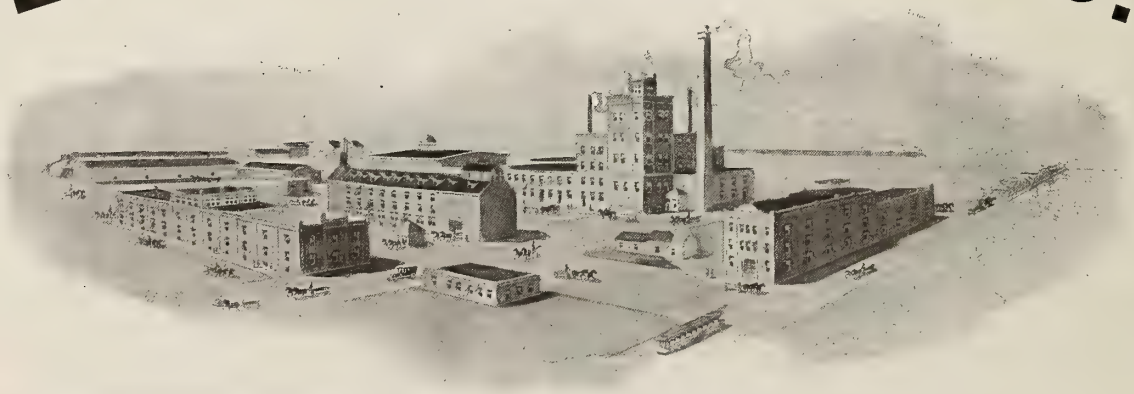
The importance and value to the nation of a sturdy rural population which is to imbue the townsmen with fresh blood, is only beginning to be fully appreciated, now that the class is starting to diminish. The fact that the farmer is the chief, if not the only, nature-bred class of men now remaining to us, cannot help having a far-reaching effect on the character of the future generation.

Remedies.

When we come to consider the possible remedy for these ills, and what has been done in this respect, we must dis-

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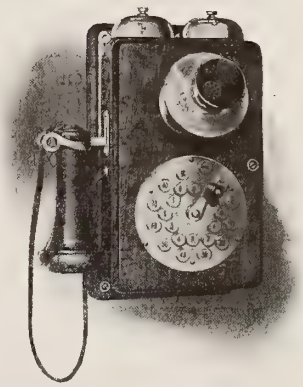
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tinguish between the harm wrought upon the city and the harm wrought upon the country.

The crowding of the city population is only partially a result of the rural exodus. Prof. Adam Shortt's plan, of spreading out the city over a larger area, is a possible remedy for the city rather than for the country problem.

The question of rural depopulation in Eastern Canada is just beginning to be realized as a serious one. There are many fields open to Canadian statesmen as soon as they wake up thoroughly to this problem, and adopt a policy of more systematic and practical administration of affairs in this direction.

Better Transportation.

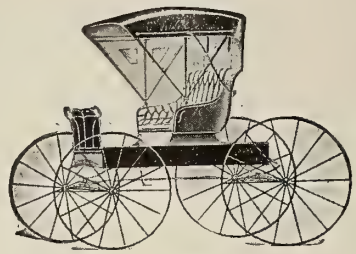
Transportation problems are not so serious to farmers in the East as to farmers in the West; but there remains a lot to be done in this respect. The rapid growth of population in the Saguenay and Lake St. John District, Quebec, and in Northern Ontario, which districts railways have been opening up for several years, is only a forecast of the great future of Northern Quebec and Ontario. The population of Northern Ontario has increased from 15,728, in 1901, to 262,539, in 1911.

The rich country in the centre of New Brunswick still remains to be opened up. Prince Edward Island is sadly in need of some form of permanent winter communication with the mainland. The lack of it is the one great drawback of this "Garden of the gulf."

Better Country Roads.

Quite as important to the farmer is the improvement of country roads. There has been a good deal done by the state here and there in this respect; but it has been done in piecemeal and slipshod fashion. Ontario has done most. During the last twenty years $40,000,000 have been spent on roads by the various counties

TUDHOPE



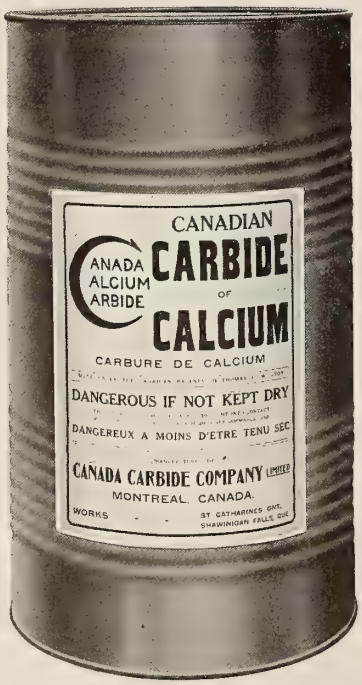
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"Nicholson-made" Files are ideal tools for economical shop practice, each file being uniform in quality, and similar to its predecessor.

The teeth are designed to remove stock rapidly.

The steel is of a quality that enables the file to maintain its high efficiency for a long time.

Take measures to introduce in your factory both proper files and a suitable service period for each file issued.

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PORT HOPE

62



A Hepplewhite Sideboard

FINE PERIOD FURNITURE

"MADE IN CANADA"

IT is natural, logically to be expected, in fact, that the Canadian manufacturer who preaches preferential trade in "made-in-Canada" goods, who publishes his belief in the "made-in-Canada" doctrine; and who professes his support of it at every opportunity, should consistently practice it when buying articles for his own private or business use—a form of reciprocity which every business man will recognize and appreciate.

Particularly does this apply to furniture.

At no time in the history of Canada has Canadian-made furniture been more worthy of our patronage than it is to-day. Confirmatory evidence of this is furnished in the period reproductions of the Toronto Furniture Company, of which the handsome Hepplewhite sideboard illustrated above is but a suggestion.

It is well to remember that furniture bearing the shop-mark of the Toronto Furniture Company, being "made-in-Canada" costs materially less than that which carries import charges added to its regular price.

The leading dealer in your locality will show you examples of our furniture in a way to demonstrate their exceptional character. If he does not carry our furniture on his floor, he will be glad to submit a portfolio of photographs of our complete line for your approval and selection.

This is our shop-mark found on all our furniture. It assures you of correct design, genuine materials and thorough workmanship.

TORONTO FURNITURE CO., LIMITED

Offices and Factory: DUFFERIN ST., TORONTO

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Those houses whose custom it is to place their contracts for stationery around this time, are cordially invited to send for samples and prices of Barber-Ellis Bond papers.

We believe them to be as good a range of Bond papers as can be obtained, and the prices, quality considered, are most reasonable.

We make an especially fine grade of private notepaper, known as Crown Vellum.

This paper is in good favor for very important correspondence. It is very heavy and has a fine vellum finish.

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in the orders for Barber-Ellis Window Envelopes clearly indicates that their many advantages have only to be known to be at once appreciated.

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Our Success in Making

catalogue envelopes is due to our knowledge of the rigorous service required of them.

Nothing is more irritating than to see one's catalogue delivered to a customer in a battered condition, due to its being carried in a flimsy, poorly made envelope.

With an idea of your needs, we will submit you a catalogue envelope that will satisfy you of its ability to stand the hardest usage and carry your catalogue to its destination in a proper manner.

Write for samples and prices, direct, to

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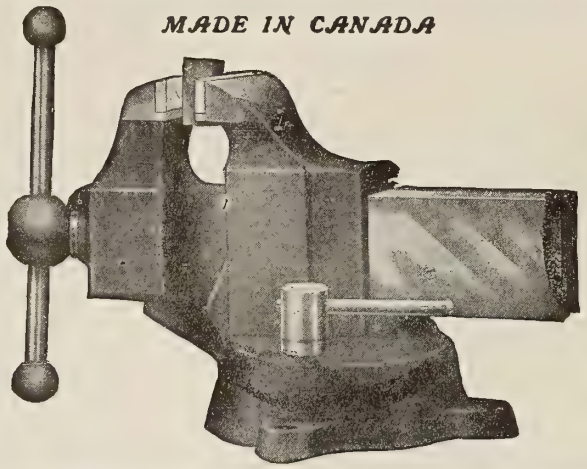
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The National Catalog would certainly interest you. Write us asking for a copy.

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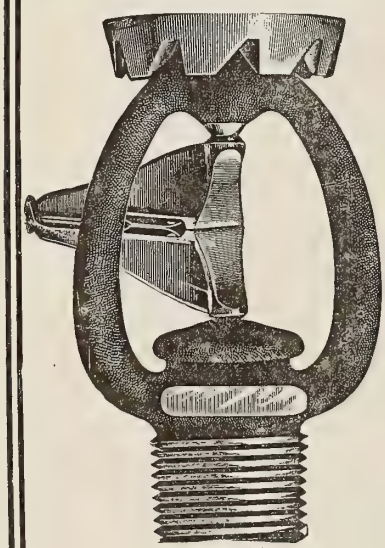
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Esty : : Automatic Fire : : Sprinkler :

It will cut your insurance premium in half and protect you against loss by fire. Write for particulars

WHAT SHALL WE DO WITH OUR RAILWAYS?

By R. D. Fairbairn. A paper read at the C.M.A. Convention at Halifax.

In Canada railway tariffs and classification are under the direct control of the Railway Commission.

The limit of their power, and his opinion of the future are clearly defined in a statement made by the late Chairman, Hon. J. P. Mabee, shortly before his death, which was as follows:

"While the people should be protected from extortionate charges, it is of equal importance that capital invested in transportation companies should be permitted to earn fair and reasonable dividends. Railway construction in Canada depends entirely upon outside capital. Thousands of millions must be borrowed within the next generation or two. We have less than 30,000 miles of railways as against more than 230,000 miles in the United States. Within fifty years Canada will require greater railway mileage than now exists in the United States."

Our Position.

This statement places before us our position in regard to transportation and future requirements. Of the 26,700 miles of railway now in operation we have control of rates and classification only in so far as the present capitalization will permit. Are we to be content to pay the same price on the 200,000 miles yet to be built? Should we not profit by the errors of our neighbors to the south?

I think you will agree that the time has come when we must seriously grapple with this vast question if we hope to make Canada what it should be, one of the great manufacturing and agricultural countries of the world. We have the natural resources, and must take advantage of our opportunities. Now the point over which we have no control is the present capitalization, on which the railways are to be permitted to earn dividends.

From the Dominion official returns to June 30, 1912, we find that the capitalization and funded debt is $1,600,000,000; ($1,588,937,526) and with 26,700 miles of railroad and equipment we have a cost of $60,000 ($59,450) per mile on which interest and dividend must be paid. Of this amount, about $815,000,000 represents borrowed money, and about $775,000,000 capitalization.

What We Gave.

To build these railways Canada has given in cash as follows:

From Dominion Government	$154,075,235
From Provincial Government	35,945,515
From municipalities	18,051,323
Total	$208,072,073

In lands we have given 56,052,055 acres, which, taken at $20 per acre (Canadian Northern report average price of $45.17 per acre), produce a total amount of $1,121,041,100. Thus we have given to the railways $1,329,113,173, or about $50,000 per mile.

The real cost of our railways through Canada is the amount upon which interest and dividends must be paid, and the estimated amount given to them, which totals the enormous figure of $2,918,055,699, or about $110,000 per mile. We get practically no benefit from this enormous gift, which almost equals the amount of their combined funded debt and capital.

High Finance.

Of the $815,000,000 of borrowed money, one is curious to know how much of it went into the actual work at a fair







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price. Subsidiary companies exist both in construction and operation. Here is an instance of high finance: Railway investigation showed these facts. The Canadian Northern Express Company's capital was $1,000,000. Apparently they were able to show profits to guarantee the issue of $3,000,000 more stock and bonds, which they were authorized to do, making a total of $4,000,000 stock and bonds.

Two million gold certificates were floated in London with the guarantee of the Canadian Northern Railway, and of the $775,000,000 capital, how much of this was paid over in cash? Or is it largely made up of the gift of the people in cash and lands? The Canadian Northern annual report shows that they acquired this property at 51 cents on the dollar.

We are sure individuals have made enormous fortunes out of railway operations before the roads actually made money.

Comparison with I. C. R.

Take in comparison the I.C.R. It cost $95,000,000 ($94,745,819) for 1,450 miles, or about $65,000 per mile (65,117). You know the history of this line and the difficult country it runs through, and yet its cost to Canada is far below the actual average cost of all combined railways. The capitalization and debt charge of $60,000 per mile, as shown by the Government returns, is, I believe, 20 per cent. too high when you include the loss through subsidiary companies. Unless we plan a new Canadian transportation policy, we will continue to pay at least 20 per cent. more freight charges than we should.

We have no quarrel with the policy of the Canadian Governments in the past. In the early days, even on such favorable terms and land values at that time, it required men with faith in Canada to undertake such a necessary work to open up a new country. Conditions are changed, Canada has now the best of credit, a large revenue, and men who can build and operate a railway system.

The Canadian Manufacturers Association are interested in this great problem from personal interest, and infinitely more from a knowledge of Canada's great need and requirements. We have a common ground of agreement with the great farming interests of this country; they, too, are interested in lower freight rates and Canada's development.

Long Distances of Canada.

In a scattered country like Canada freight rates are a most important factor in the development of any manufactory. We find that trade with the United States in manufactured goods purchased from them has grown enormously; and I am of the opinion that it is in a large measure due to the fact that we, as manufacturers, cannot compete with the United States because of our excessive freight charges, and that, owing to their geographical position, they are nearer to our market where manufacturing is undeveloped, and which will remain undeveloped so long as we operate under this handicap. A Canadian national transportation policy must be adopted by our Government, and the sooner the better. It will have to be a Government owned and controlled transcontinental line, operated under a strong Commission, leaving the present Railway Board, as it stands to-day, to arbitrate rates and classifications. Canada must adhere firmly to the policy of no more aid to private owned railways.

The Canadian Northern are now nearing the completion of their system, and it is possible that the ambition of Mackenzie & Mann will then be satisfied, and the Government will be able to treat fairly with them and buy out the entire system. Doubtless they will require more assistance, and if they do, it should only be given on a binding agreement by which the Government could take over the roads on an agreed price; failing this, then the Government should build another

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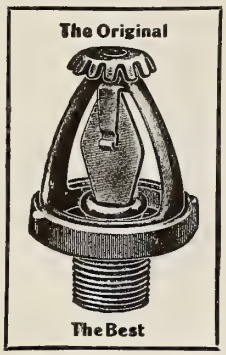
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RIGHT NOW IS THE TIME
WINNIPEG IS THE PLACE

Reports furnished free on the manufacturing possibilities of any line of industry.

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road through to the Coast. It is almost certain that the Goevrnment will have to operate the Eastern Division of the Grand Trunk Pacific, which they are now building. This road will cost the country $143,000 per mile when completed, and will be ready in the year 1914. It is one of the most expensive railroads ever built in Canada, due in part to the character of the country through which it runs; and I am told it is a grand roadbed, and will not require the future earnings of the road to put it in running shape, as so much of private owned roads are doing to-day.

A Proposed Remedy.

Link up the I.C.R., Eastern Division of the Grand Trunk Pacific and the Canadian Northern, put a fair and reasonable valuation upon the completed system, make necessary depreciation, even to the extent of millions, and then we can give the people of Canada fair and reasonable freight rates. It will be a proper regulator of freight rates. Remember it is not proposed to place all railroads under Government control, because competition would be good for both public and private ownership. While there would be an apparent very heavy loss, still the saving to the people would be simply enormous. We must develop our trade from the Maritime Provinces and reserve our Western markets.

Linked up with Government transportation is the Hudson's Bay route. It is now conceded that vessels can navigate from three to four months a year. The Government should own and operate a line of steamships touching at St. John's, Sydney, Halifax and St. John, to be operated, if necessary, at a loss for a time so as to allow the Maritime Provinces a chance to get their products through to the heart of the continent and to develop a trade. Our Transportation Department have gone to considerable trouble to give the following figures:

It is likely that, when the Panama Canal is open, a charge of $2 per ton freight will have to be paid by Canadians. With the long haul to the seaboard, Ontario and Quebec will be debarred from taking advantage of this route for the Pacific coast trade, but with these Provinces the $2 per ton will not be so great a handicap. You have untold natural resources, such as coal, lumber, fish and minerals, and then with iron, raw cotton and raw sugar at tidewater you have right here the greatest inducement for manufacturers to locate and invest their money; there is no more promising field for development anywhere in the country; always provided we have cheap transportation.

Development in the Maritime Provinces means the development of all Canada; we from Ontario and Quebec do not begrudge you your opportunities; we must develop our own Canadian trade, and while desirous of living in peace and goodwill with our neighbors to the south, yet our first duty is to Canada, to make it the greatest part of the British Empire.

Discussion of Mr. Fairbairn's Paper.

Mr. Fairbairn's paper caused considerable discussion.

"I can understand that Government ownership of a railway may be much to be desired by one section of a country, but it may not be equally desired by other sections," said Mr. S. R. Parsons, of Toronto. "I am not so sure that other Provinces would not feel that they had the right to be dealt with in the same way. If the Intercolonial Railway is to be asked to do its work for the benefit of one section of the country, and to be conducted on the principle that it is not to be a revenue-earning road, you are actually taking money out of one pocket and putting it into another. We should control our railways, and for that purpose we have an excellent Board that has been doing good work. The members of



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JUST a few words about our new building of which we are justly proud. We have now what is without doubt the most modern, best equipped and largest lithographing plant for both color and commercial work in Canada.

Our new building is situated on the East side of Carlaw Avenue just North of Queen Street, and has a frontage of 300 ft. with a depth of 250 ft.

It has been especially designed for the lithographic and printing business, being perfectly lighted throughout.

The press, stock transfer, cutting, finishing, heavy bindery, and shipping departments are all on the ground floor.

Our offices, artist department, photographic rooms, light bindery and employees' luncheon rooms are all on the second floor.

Every employee is working under ideal conditions as to light and ventilation.

The basement has been suitably designed for employees' locker rooms, stone storage, and carpenter shop. Under ideal working conditions we should be able to give our customers the very best quality of work with quick service.

If you pay us a visit in our new home we will be pleased to show you through the plant.

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Lithographers Engravers Embossers

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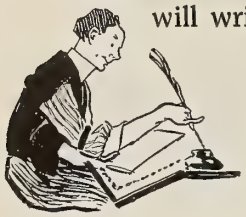
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TORONTO Phone Adelaide 1886

the Board are working along right lines, and if they continue their good work they will secure rates that will be of advantage to the people of all sections of the country.

Experience of Government Roads.

"Taking the late Judge Mabee's ruling, that capital invested in railways should be permitted to earn a fair return, you will see that this should apply to Government owned railways with the same force as to private owned railways. Any proposition that did not involve this would be unsatisfactory as a whole. There is a Government owned road in Northern Ontario that has been operated in a manner that is fair to the people, to the Government and to the country. But what about the people living along the line of railway? And what about the freight charges? You find complaints everywhere. They think that because the road is Government owned it should not earn returns. Some years ago the British Government looked into the question of Government owned railways. They have not only short distances, but they have the money wherewith to purchase railways. When this matter was brought to the attention of the House of Commons the Government appointed a Commission to visit foreign countries, and especially Germany, where the railways are State owned, and where about every other man you come across is a railway official. The Commission, after visiting Germany, brought in a report. I am sorry that the figures are not available, but the Commission found that, in Germany, with higher freight and passenger rates, the people were getting a poorer service. So you see that Government owned railways are not always a desirable proposition. In Canada we will soon have three transcontinental railways running from coast to coast, and we would be trying to close the stable door after the horse has been stolen. An enormous sum of money has been put up for the building of these railways in one form or another, and as population increases there will be the need for the expenditure of more money. What we will need most is money for branch lines. It may be that this expenditure for branch lines will be less serious than in the past and that we will feel it less. With regard to the amount of capital actually invested by the companies, I am not sure that we are in a position to say much until our own skirts are clear, as many industrial concerns have been organized on a similar footing."

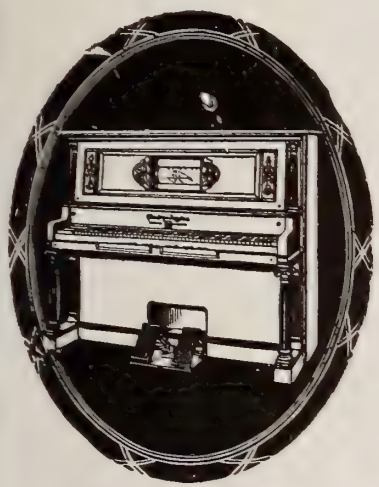
Testimony of an Engineer.

Mr. E. G. Henderson, Windsor, said: "As I understand Mr. Fairbairn, his proposition is not only that a new line be established in this country, but that we should buy out the Canadian Northern, and that the Transcontinental be run at a loss. What about the capital of these companies? Do we want to ruin the whole country? If Mr. Fairbairn had advocated something of the kind thirty years ago it might have been a good thing, but to advocate to-day that we build a line and operate it at such a cost as to put the others out of business does not appeal to me. He was telling us the value of the land which was given. I presume he referred to the C.P.R. He put the value at twenty dollars an acre. If the Canadian Pacific had not been built, what would have been the value of that land to-day? The main ground of my objection to Mr. Fairbairn's proposition is that if anything of the kind was adopted in Canada the financial position of the country would be disturbed as never before. It would mean the buying out of all the stock of these companies."

A universal Exhibition will be held in Nottingham, England, in 1914. It is under the patronage of the most distinguished men in England, and special care will be taken of the industrial side of the Exhibition.

Men forget business cares in the enjoyment of

Gourlay-Angelus
Player-Pianos



A GOURLAY-ANGELUS provides ANYONE with the ability to play ANY music artistically.

In the opportunity for recreation thus afforded, many busy men find enjoyment hitherto undreamed of, as well as a complete rest from the business worries and cares of the day. If you find it hard to leave these cares behind you when you go home, depend upon it, a Gourlay-Angelus will make you forget them.

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Over 500 Organs constructed by this Firm in Canada and U.S.

—— REFERENCES ——

Toronto, Ont.—St. Andrew's Church (the largest in Canada)
" " Convocation Hall (University)
" " Walmer Road Baptist Church
" " Conservatory of Music
Hamilton, Ont.—Central Presbyterian Church
Brantford, Ont.—Brant Avenue M.E. Church
Stratford, Ont.—St. James's Episcopal Church
Winnipeg, Man.—Broadway M.E. Church
" " Westminster Church
Regina, Sask.—Methodist Church
Calgary, Alta.—Knox Presbyterian Church
Vancouver, B.C.—St. Andrew's Presbyterian Church
Victoria, B.C.—R.C. Cathedral
" " Metropolitan Methodist Church
Dawson City—R.C. Church
Evanston, Ill.—North-Western University
Chicago, Ill.—Sinai Temple
Montreal, Que.—Notre Dame Church
" " St. George's (Church of England)
" " Emmanuel Congregational Church
Ottawa, Ont.—R.C. Cathedral
Quebec, Que.—Basilica (R.C.)
Fredericton, N.B.—Cathedral (Anglican)
St. John, N.B.—Centenary Church
Yarmouth, N.S.—Trinity Church (Episcopal)
Lunenburg, N.S.—Lutheran Church
Amherst, N.S.—Baptist Church
Halifax, N.S.—All Saints' Cathedral
Sydney, C.B.—Methodist Church
New York City—St. Francis Xavier's Church
New Bedford, Mass.—St. Anthony's Church
Fall River, Mass.—Notre Dame Church
Boston Opera House
Kingston, Jamaica—R.C. Cathedral

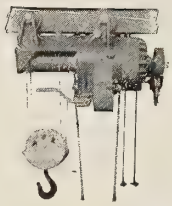
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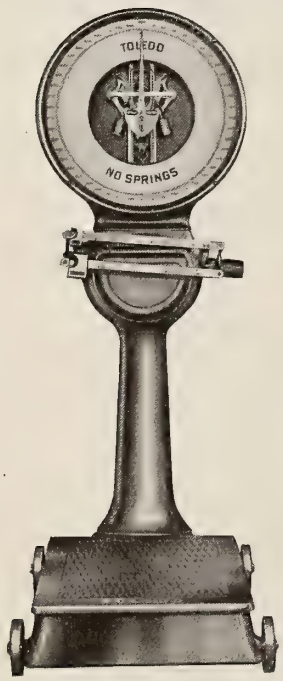
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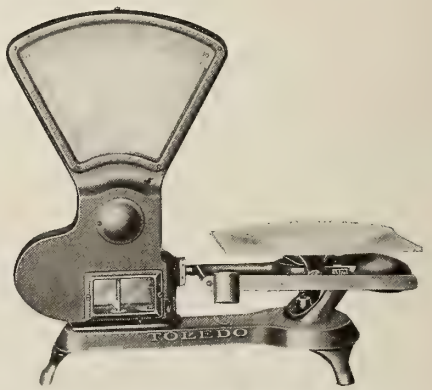
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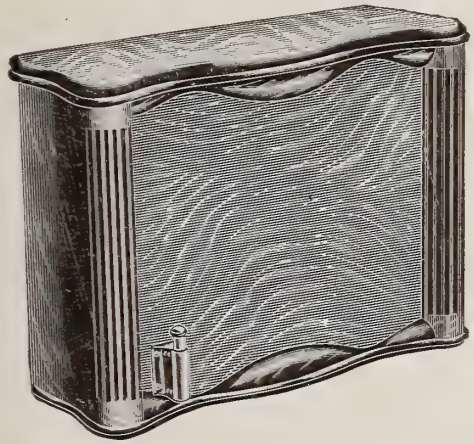
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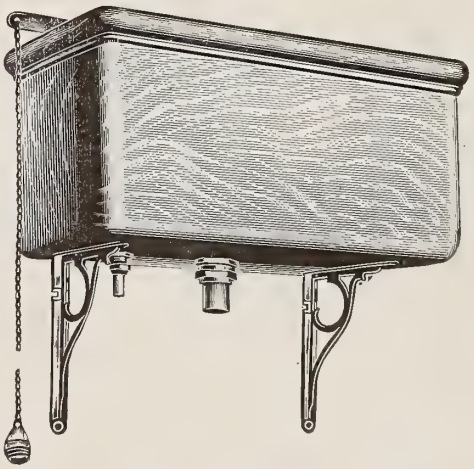
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Agencies:

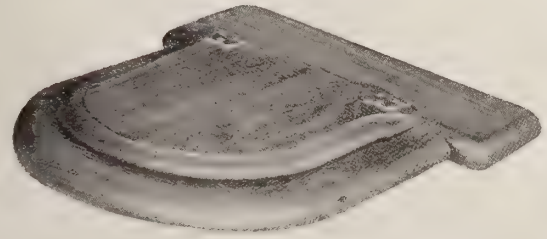
New York

Sydney, Australia

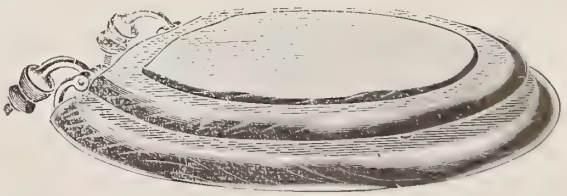
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HIGH UP TANK



FOUR-PIECE SEAT AND COVER

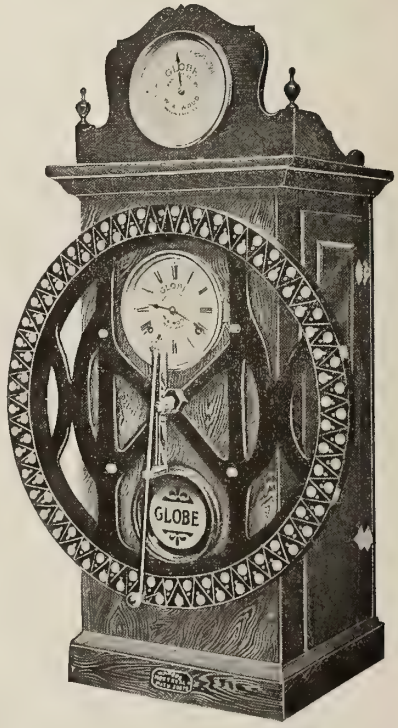


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Scientific Management & Scientific Time-Keeping Include The Use of a "Globe"

Because without an accurate Time Recording device no cost system is complete. The small leaks and losses due to inaccurate time keeping will nullify the best methods of recording costs because time is the most important factor in the cost of production.

The more you pay for labor the more important it becomes to you to be sure you get **all** the time you pay for and pay for **no** time which you do **not** get. There's where the "pay roll leaks" creep in, and those are just the sort of leaks that are effectively plugged by a **"Globe"** Time Recorder.



You owe it to your dividend account to investigate the possibilities of economy to be derived from the use of a "Globe."

Catalogue "C" will help you investigate. Shall we mail one to you?

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W. A. Wood

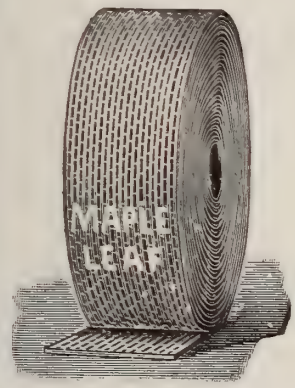
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CANADA LAGS BEHIND.

It is interesting to compare the positions of the various Dominions with regard to the defence of the Empire.

Australia gave $630,000 annually from 1887 to 1902, and from 1902 to 1907 gave $1,000,000 a year, when a local fleet was established on a big basis, including a battleship.

New Zealand gave $100,000 from 1887 to 1902, and from 1902 to 1907 $200,000 a year, when the contribution was raised to $500,000, and in addition has given a battleship.

Natal from 1897 to 1902 gave $12,000 annually, and since then $175,000 a year.

Cape Colony from 1897 to 1902 gave $150,000 annually, and since then $200,000 a year.

Newfoundland has given $15,000 a year towards the maintenance of a branch of the Royal Naval Reserve since 1902.

Malay States a battleship.

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of October, 1913.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload lots; L.C.L., less than carload lots.)

Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 31 E 2141	Sup. 31 E 1737	Oct. 15-13	Reshipping, stop-off and special arrangements. Change.
Sup. 1 E 2515	Sup. 1 E 2119	Oct. 13-13	Stop-off on lumber.
Sup. 2 E 2643	Sup. 2 E 2259	Oct. 13-13	Pig iron, c.l. between C.P. stations and to connecting lines. Reissue. Reduction.
Sup. 58 E 2492	Sup. 58 E 2092	Sep. 30-13	Commodities between various stations. Reissue. Reduction.
Sup. 28 E 2141	Sup. 28 E 1737	Nov. 1-13	Reshipping, stop-over and special arrangements. Advance.
Sup. 29 E 2141	Sup. 29 E 1737	Sep. 30-13	Reshipping, stop-over and special arrangements. Reduction.
E 2643 cancels E 1841	E 2259 cancels E 1431	Oct. 11-13 (R) Nov. 6-13 (A)	Pig iron, c.l., from C. P. stations to points on C.P.R. and connecting lines. Advance. Reduction. Reissue.
Sup. 19 E 2538	Sup. 19 E 2144	Oct. 11-13	Local switching and interswitching at C. P. stations. Reduction.
Sup. 1 E 2643	Sup. 1 E 2259	Oct. 11-13	Pig iron, C.P. stations and connecting lines. Addition.
Sup. 30 E 2141	Sup. 30 E 1737	Oct. 11-13	Reshipping, stop-off and special arrangements. Reduction.
E 2646 cancels E 2538	E 2262 cancels E 2144	Nov. 10-13	Local switching and interswitching. Advance. Reduction. Reissue.
Sup. 3 E 2439	Sup. 3 E 2039	Oct. 13-13	Rules and regulations governing the weighing of c.l. traffic. Reissue.
Sup. 53 E 2492	Sup. 53 E 2092	Sept. 15 (R) Oct. 13 (A)	Commodities between C. P. stations and from and to connecting lines. Advance. Reduction.
Sup. 18 E 2538	Sup. 18 E 2144	Sept. 26 (R) Oct. 17 (A)	Local switching, inter-switching and absorption of switching. Advance. Reduction.

R. Laidlaw Lumber Co. LIMITED

ESTABLISHED 1871

INCORPORATED 1904

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"Made in Canada"

WE have been making belting in Canada for Canadian Manufacturers for over thirty-six years.

During that period we have used good, honest material, and we have employed good, honest workmen.

The result of our experience is given to you in the two foremost brands of Canadian belting.

"Climax" Oak Tanned

AND

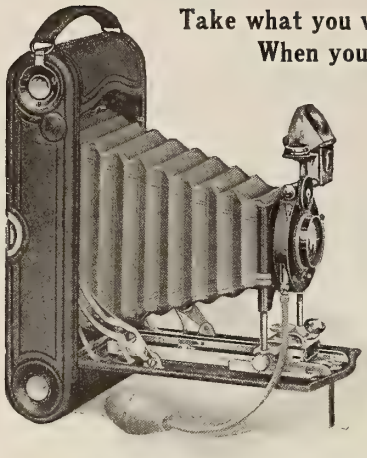
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**Take what you want,
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A snap-shot in one two-hundreth part of a second—a slow snap-shot in the shade, even indoor snap-shots under favorable conditions, and all without the loss of any of the Kodak simplicity. Such are the capabilities of the

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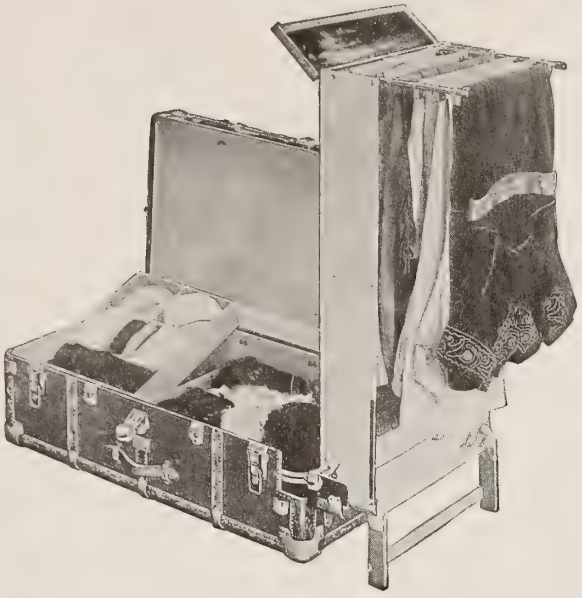
C.R.C.	R.R. No.	Effective.	Description.
Sup. 54 E 2492	Sup. 54 E 2092	Sept. 22-13	Commodities between C.P. points. Reduction.
Sup. 27 E 2141	Sup. 27 E 1737	Oct. 22-13	Re-shipping, stop-off and special arrangements. Reduction.
Sup. 55 E 2492	Sup. 55 E 2092	Sept. 24-13	Commodities between C.P. stations and from and to connecting lines. Reduction.
Sup. 31 E 2559	Sup. 31 E 2166	Sept. 29-13	Building material between C.P. stations.
Sup. 3 E 2643	Sup. 3 E 2259	Oct. 15-13	Pig iron C. L. between points in Canada.
Sup. 3 E 2664	Sup. 3 B 24	Nov. 15-13	Class rates between Buffalo, Black Rock & Suspension Bridge, and points in Canada. Advance.
Sup. 20 E2538	Sup. 20 E2144	Oct. 14-13	Local switching and interswitching. Reduction.
Sup. 11 E1697	Sup. 11 E1284	Nov. 15-13	Class rates to points in New York, Pennsylvania, Ohio, and W. Virginia. Advance.
Sup. 1 E1698	Sup. 1 E2101	Nov. 15-13	Class rates to points on Boston and Maine R.R. Advance.
Sup. 2 E2249	Sup. 2 E1847	Nov. 15-13	Class rates to points on Delaware & Hudson Co. Advance.
Sup. 3 E2254	Sup. 3 E1852	Nov 15-13	Class rates to points in New York, Pennsylvania, Ohio, and W. Virginia, via Port Burwell. Advance.
Sup. 4 E2412	Sup. 4 E2012	Nov. 15-13	Class rates to points in B. & O., C.R.R of N. J.; Penn. R.R., P. & R., etc., in the U.S. Advance.
Sup. 2 E2518	Sup. 2 E2122	Nov. 15-13	Class rates to points in Western U. S. Advance.
E2263 Cancels E1654	E2647 Cancels E1241	Nov. 15-13	Class rates to Buffalo, Black Rock, and Suspension Bridge. Advance.
E2650 Cancels E1200	E2266 Cancels E781	Nov. 15-13	Class rates to points in Ohio, Indiana and Kentucky. Advance.
E2651 Cancels E1426	E2267 Cancels E1010	Nov. 15-13	Class rates Montreal to Burlington, Vt. Advance.
E2652 Cancels E1533	E2268 Cancels E1118	Nov. 15-13	Class rates to New York, N.Y. Advance.
E2653 Cancels E1616	E2269 Cancels E1203	Nov. 15-13	Class rates to New York and New England points. Advance.
E2654 Cancels E1617	E2270 Cancels E1204	Nov. 15-13	Class rates to points on N.Y.N.H. & H.R.R. Advance.
E2655 Cancels E1618	E2271 Cancels E1205	Nov. 15-13	Class rates to points on Boston & Maine, Central Vermont and Maine Central Railways. Advance.
E2656 Cancels E1460	E2272 Cancels E1045	Nov. 15-13	Class rates from Fort William and Port Arthur to points in New York and New England. Advance.
E2657 Cancels E2303	E2273 Cancels E1903	Nov. 15-13	Class rates to points in Western States. Advance.
E2658 Cancels E1129	E2274 Cancels E1446	Nov. 15-13	Class rates to Rouse's Pt., N.Y. Advance.

Rite-hite



Exclusive Features Patented in United States, Great Britain and Canada.

Berth-high



THESE TRUNKS ARE BUILT FOR COMFORT AND CONVENIENCE

You Can Pack Over 100 Pieces of Wearing Apparel in Either of These Luxurious

Langmuir-Hartmann Wardrobe Trunks

NOTE how the top of the wardrobe section opens. You can remove any garment without disturbing the rest.

The hinged top is lined with padded plush. When closed, a firm, yet soft pressure on top of the clothing prevents garments swinging off the hangers. No other wardrobe trunk has this hinged top.

UNIQUE HANGING PRINCIPLE DOES AWAY WITH STRAPS AND TAPES

An adjustable, simple retainer holds garments firmly without wrinkling. No hooks, straps or tapes.

Simplified hangers for properly draping any style of gown, dress, coat or suit for men, women or children.

RITE-HITE—TWO SIZES—40 AND 45 INCHES

No excess baggage for size or weight when fully packed. Three-ply, reinforced, round edged, "Gibraltarized" construction; cold-rolled steel trimmings. Five times stronger than ordinary trunks.

HAS simplified, improved style hangers on which garments are perfectly draped without wrinkling. Hinged padded plush top on wardrobe section. Adjustable retainer holds garments securely.

YOU DON'T STAND IN THE BERTH-HIGH TRUNK TO PACK IT

Note how the wardrobe tray swings up, held firmly by rigid supports. You pack the clothes from the outside.

Trunk lid can be closed and locked while wardrobe section remains upright outside, your clothes hanging as in your home closet. The only steamer wardrobe trunk in which this is possible.

BERTH-HIGH—43 INCHES IN LENGTH

Has double the capacity of any other wardrobe trunk the same size.

Same staunch construction as in the LANGMUIR-HARTMANN "RITE-HITE." Made in a variety of styles.

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Through bills of lading issued to all points in Australia, New Zealand, Tasmania and other islands of Oceania.

Marine Insurance effected at rates equal to those given from New York.

First class passenger accommodation.

For rates and other information apply to

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LIMITED
213 Board of Trade Building - Montreal

Grand Trunk Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 85 E 2644	Sup. 85 C. Y. 27	Sep. 29-13	Iron and steel articles, Bridgeburg to various stations. Reduction.
Sup. 10 E 2374	Sup. 10 C.R. 111	Sep. 30-13	Reshipping, stop-off and special arrangements. Reduction.
Sup. 86 E 2644	Sup. 86 C. Y. 27	Nov. 4-13	Commodities between G. T. stations. Reissue. Advance.
Sup. 17 E. 2499	Sup. 17 C.I. 137	Oct. 7-13	Pig iron, c.l., Port Colborne, Ont., to points in Ontario. Reduction.
E 2785 cancels E 2719	S 92 cancels S 90	Nov. 4-13	Absorption of switching charges on c.l. traffic at G.T. stations in the U.S.
E 2783 cancels E 2499	C.I. 146 cancels C.I. 137	Oct. 10-13	Pig iron, c.l., between G.T. stations and to connecting lines. Advance. Reduction.
Sup. 1 E 2783	Sup. 1 C.I. 146	Oct. 10-13	Pig iron between G.T. stations. Reduction.
Sup. 20 E 2374	Sup. 20 C.R. 111	Oct. 11-13	Reshipping, stop-off and special arrangements. Reduction.
Sup. 17 E 1985	Sup. 17 E 37	Nov. 1-13	Class and commodity rates, G.T. stations to Boston, Portland, St. John and Halifax. For export. Reissue. Reduction.
E 2782 cancels E 2355	S 91 cancels S 84	Oct. 4-13	Equalization tariff at Guelph. Reduction. Advance.
Sup. 12 E 2457	Sup. 12 S 86	Nov. 10-13	Interswitching.
Sup. 21 W 282	Sup. 21 202-B	Sep. 28-13	Class and commodity rates G. T. stations in U.S. to points in Canada. Reissue. New rates.
E 2779 cancels E 2539	C.P. 102 cancels C.P. 92	Sept. 25-13	Paper commodities between points in Canada. Reissue.
Sup. 10 E 2684	Sup. 10 C.U. 72	Oct. 19-13	Commodities between G. T. stations. Reduction.
Sup. 84 E 2644	Sup. 84 C.Y. 27	Sept. 24-13	Wrought iron pipe, c.l., Welland, Ont., to Donnacona, P.Q., 21 cts. per 100 lbs. Reduction.
Sup. 46 E 150	Sup. 46 G.B.Y. 5	Oct. 13-13	Bar iron, c.l., Hamilton to Ingersoll. Advance.
Sup. 11 E 2457	Sup. 11 S 86	Oct. 15-13	Interswitching at G. T. stations. Reduciton.
Sup. 81 E 2644	Sup. 81 C.Y. 27	Sept. 22-13	Castings, iron or steel, Hamilton to Kingston. Reduction.
Sup. 11 E 133	Sup. 11 G.B.F. 4	Nov. 15-13	Class and commodities to Duluth, St. Paul, and Winona, Minn. Advance.
Sup. 4 E 2361	Sup. 4 V 20	Nov. 15-13	Class rates to stations in New York, New Jersey and Pennsylvania. Advance.
Sup. 2 E 2755	Sup. 2 C.P. 101	Nov. 15-13	Wood pulp Merritton and Thorold to points in U. S. Advance.
Sup 2 E 2421	Sup. 2 V 27	Nov. 15-13	Class rates to points on Erie R. R. Advance.
Sup. 34 E 176	Sup. 34 G.A. 10	Nov. 15-13	Class rates to stations In the U.S. Advance.
Sup. 3 E 2617	Sup. 3 V 43	Nov. 15-13	Class rates to points in the U. S. Advance.
E 2788 Cancels E 2716	V 52 Cancels V 48	Nov. 15-13	Class rates Toronto to Rochester, N. Y. Advance.

EXPANSION YEAR

"1913" will go into the records as "Expansion Year" both for the

Canadian National Exhibition

and for

Canada's National Newspaper

The Toronto Fair increased its attendance by 47,000, and *The Globe* has so far this year increased its average (sworn) circulation from 57,955 to 62,365.

For sixty-nine years *The Globe* has been

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NATIONAL IN NEWS SERVICE
NATIONAL IN CIRCULATION—

And it is on the list of practically every National Advertising Campaign.



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Let our warehouse be your Western Branch. Keep a stock here and let us relieve you of all worry as to distribution. We have absolutely reliable forwarding and checking clerks of experience. Our charges are reasonable, our reports regular, and shipments prompt. As a business man you can readily see that Regina is the

NATURAL LOGICAL CENTRE

for Western distribution and we are the largest and oldest established Forwarding Company in the West.

Money has been tight in the West. Never in the history of the West has it been tighter, but now farmers are smiling, crops have been good, money is going to move freely. Get your stock here early. Be on the ground for the opening of business. We are serving scores of Eastern Manufacturers and Merchants. Let us show you what we can do for you.

WRITE US ABOUT YOUR LINE

Regina Storage & Forwarding Co., Ltd.
REGINA, SASK.

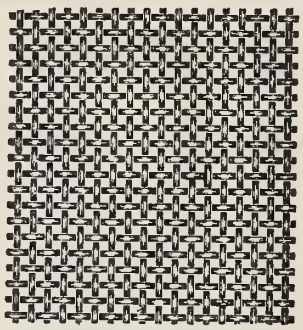
ARNETT BUSINESS FURNITURE

Hardwood, Bank, Office and Store Fixtures

ARNETT FURNITURE
LIMITED
SOURIS, MANITOBA, CANADA

Canada Wire & Iron Goods Co.

HAMILTON - - CANADA



Manufacturers of **Double Crimped Wire Cloth and Wire Screening** for all purposes of Iron, Brass, Copper, Bronze, Galvanized and Tinned Wire, etc.

There is no kind of Wire Fabric required in the production of any machine or manufactured article that we cannot furnish.

We also manufacture:—

Bank and Office Grilles and Ornamental Iron Work in all finishes.

Wire Guards for Factory Windows, Moulders' Riddles, Laboratory Testing Sieves, Steel Factory Stools and Metal Lockers.

Send for Catalogue — Enquiries Solicited

Monarch Electric Co.

LIMITED
St. Lambert - - - P.Q.

ENGINEERS & MANUFACTURERS

—OF—

Starting Units Special Electrical Devices
Sockets, Rosettes, Cutouts, Lamp Guards
Attachment Plugs Metal Novelties
Metal Specialties, &c., &c., &c.

Switchboards for Light and Power.
Switches, Circuit Breakers, Detail Apparatus and Appliances for Switchboards

Instrument Transformers

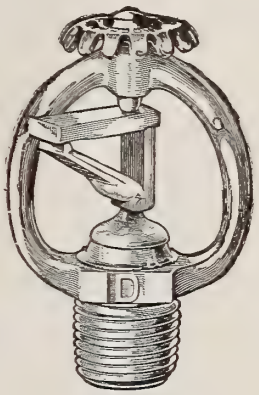
A Warning to Every Canadian Manufacturer

Can you afford to be out of business for six months? What would happen if your factory burned down to-day? Would your insurance pay you for loss of time? Can you take the chance? Think it over. :: ::

The Answer Is

Install Automatic Fire Sprinklers

The only Effective Agent for the Automatic Control of Fire

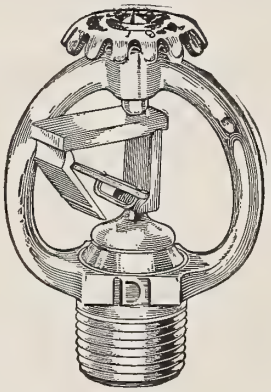


Closed

Every Fire Prevention Association and all Insurance Associations Endorse

"Rockwood Automatic Sprinklers"

"On duty day and night, they never fail" :: ::



Opening

A saving of from 50 to 80% per annum in the cost of your insurance will pay for the installation in a very short time. :: ::

For full particulars and free estimates write

Rockwood Sprinkler Co. of Canada

LIMITED

MONTREAL, QUEBEC



Why we make ARCTIC METAL

Because the consumers are looking for a Babbitt that is always uniform—that will stand up under heavy pressure—that will keep cool under high speed.

The Consumers have found these conditions in

ARCTIC METAL

MANUFACTURED BY

Tallman Brass & Metal Co.

HAMILTON, ONT.

Send me a Box of BABBITT—
The Kind that Does not Wear Out

This was an Order from a Customer who sent a Repeat Order for

Harris Heavy Pressure

THE BABBITT METAL WITHOUT A FAULT



BEST FOR ALL GENERAL MACHINERY BEARINGS

We Manufacture all Grades of
BABBITT METALS

Write for List.

THE CANADA METAL CO., LTD.
Toronto ∴ Montreal ∴ Winnipeg

Michigan Central R.R.

C.R.C.	R.R. No.	Effective.	Description.
E2659 Cancels E2325	E2275 Cancels E1925	Nov. 15-13	Class rates to points on N.Y.C. & H.R.R.R. Advance.
E2660 Cancels E2338	E2276 Cancels E1938	Nov. 15-13	Class rates to points on Philadelphia and Reading Ry. Advance.
E2661 Cancels E2623	E2277 Cancels E2236	Nov. 15-13	Class rates to points on Erie R.R. and connections. Advance.
E2662 Cancels E1675 E1753	E2278 Cancels E1262 E1341	Nov. 15-13	Class and commodity rates to points in New England. Advance.
E2663 Cancels E1973 E2017	E2279 Cancels E1566 E1613	Nov. 15-13	Class and commodity rates from Detroit, Mich., to points in Canada. Advance.
E2664 Cancels E2381	E2280 Cancels E1961	Nov. 15-13	Class and commodity rates to points in New York, Pennsylvania, etc.
E2668 Cancels E2560	E2284 Cancels E2167	Nov. 15-13	Import freight, West St. John and St. John, N.B., to points on C.P.R. Advance.
E2671 Cancels E2259	E2287 Cancels E2133	Nov. 15-13	Commodities to points in U. S. Advance.
E2672 Cancels E2570	E2288 Cancels E2176	Nov. 15-13	Commodities to points in U.S. Advance.
E2688 Cancels E2326	E2304 Cancels E1926	Nov. 15-13	Class rates to points on N.Y.C. & H.R.R.R., N.Y.O. & W., and W.S. Rys. Advance.
E2686 Cancels E2122	E2302 Cancels E1718	Nov. 15-13	Class rates to points on West Shore R.R. Advance.
E2683 Cancels E1593	E2299 Cancels E1180	Nov. 15-13	Paper, c.l., C.P. stations to points in U.S. Advance.

Canadian Northern Railway.

E 274 Cancels E 177	E 322 Cancels E 205	Nov. 15-13	Class rates to Buffalo, Black Rock and Suspension Bridge. Advance.
Sup. 1 E 270	Sup. 1 E 317	Nov. 15-13	Class rates to points on D. L. & W. R. R. Advance.
Sup. 2 E 243	Sup. 2 E 286	Nov. 15-13	Class rates to points on the Erie R. R. Advance.
Sup. 2 E 245	Sup. 2 E 288	Nov. 15-13	Class rates to points on C. R. R. of N. J. Advance.
Sup. 1 E 244	Sup. 1 E 287	Nov. 15-13	Class rates to points in U.S. Advance.

Baltimore & Ohio Railroad.

Sup. 1 1110	———	Nov. 15-13	Iron and Steel Articles. Columbus, Fair Oaks and Zanesville, O., to points in Canada. Advance.
1213 Cancels 1026	———	Nov. 15-13	Castings, Stampings, Radiators, etc., B. & O. stations to Bridgeburg. Advance.
1208 Cancels 1014	———	Nov. 15-13	Machinery C. L., B. & O. stations to Victoria Mine and Welland, Ont. Advance.

New York, Chicago & St. Louis R.R.

199 Cancels 161	276 B Cancels 276 A	Nov. 15-13	Iron and Steel, N.Y. C. & St. L. stations to poins in Canada. Advance.

ARE YOUR STEAM PIPES INSULATED?

IF NOT YOU ARE BURNING MONEY

A **GOOD** Covering pays for itself in one Season, and is a revenue producer indefinitely.
The Best is the Cheapest. ☞**WE HAVE IT.**

EUREKA MINERAL WOOL & ASBESTOS COMPANY

118 ADELAIDE STREET WEST, TORONTO, ONTARIO

NOTICE

The following are the Factory Inspectors for the Province of Ontario:

JAS. T. BURKE, Chief Inspector, Parliament Buildings, Toronto.
H. A. CLARK, 432 Woodman Avenue, London.
A. W. HOLMES, Parliament Buildings, Toronto.
ROBERT HUNGERFORD, Parliament Buildings, Toronto.
MISS MARGARET CARLYLE, Parliament Buildings, Toronto.
MRS. A. BROWN, Parliament Buildings, Toronto.
THOMAS KEILTY, 25 Russell Avenue, Ottawa.
S. J. MALLION, 214 Wellington Street, Stratford.
FRED KELLOND, 157 Wellington Street South, Hamilton.
H. J. TUTT, 13 Enderby Road East, Toronto.

Persons having business with any of the Inspectors will find them at the above address. **HON. JAS. S. DUFF**, Minister of Agriculture. Phone Main 5800.

NOTICE

to

Stationary Engineers

Everyone operating a Stationary steam plant of 50 h.p. or over in the Province of Ontario must hold a Certificate from the Stationary Engineers' Board. Anyone operating such a plant without a Certificate is liable to the penalties set forth in the Stationary Engineers' Act.

HON. JAS. S. DUFF
Minister of Agriculture

W. C. McGHIE
Chairman of the Board

Modern Factory Construction in Canada

is illustrated by the buildings recently erected by Sheldons Limited, Galt Ont., National Steel Car Company, Hamilton, Ont., Canadian Copper Company, Copper Cliff, Ont., American Cyanamid Company, Niagara Falls, Ont., and others who have erected manufacturing buildings in which



MADE IN CANADA

NATCO-HOLLOW TILE

has been used for exterior walls and roofs.

The **PERFECT INSULATION** obtained only by the use of Hollow Tile for exterior walls and roofs, is a **distinct advantage** of Hollow Tile over all other materials.

National Fire Proofing Company of Canada, Limited

TRADERS BANK BUILDING, TORONTO
FACTORY: on G.T.R. between Hamilton and Waterdown

The Thomas Davidson Manufacturing Co., Limited

Established 1860 Incorporated 1895

Head Office and Works: MONTREAL

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Makers of the Celebrated "COLONIAL" and "PREMIER" Brands of Enameled Steel Ware



Prompt Attention Given to All Trade Enquiries

Catalogue on Application

— ALSO —

Lithographed, Pressed and Pieced Tinware. Sheet Iron and Steel Ware, Galvanized Ware, Copper Ware, Wire Goods, Steel Refrigerators, Stoves, Ranges, Boilers, etc.

If It Pays Others, It Should Pay You To Use Our Oxy-Acetylene Plants

See if you cannot improve your process of manufacturing and decrease your maintenance cost by using

OXY-ACETYLENE WELDING

of metals and cutting of iron and steel in any form or shape.

L'AIR LIQUIDE SOCIETY

Oxygen Manufacturers Welding & Cutting

MONTREAL - - TORONTO

Baltimore & Ohio Railroad.

1194 Cancels 1044	———	Nov. 15-13	Commodities B. & O. stations to points in Canada. Advance.
1166 Cancels 1075	———	Nov. 15-13	Scrap Iron, Zinc, etc., B. & O. stations to points in Canada. Advance.

Delaware, Lackawanna & Western R.R.

Sup. 12 13	Sup. 12 A 91	Nov. 15-13	Class rates D. L. & W. stations to points on C.P.R. Advance.
Sup. 9 114	Sup. 9 A 396	Nov. 15-13	Class rates to points on G. T. R. Advance.

Baltimore & Ohio Southwestern R.R.

Sup. 1 234	Sup. 1 H 2447	Nov. 15-13	Class rates B. & O., S. W. stations to points in Canada. Advance.
Sup. 1 235	Sup. 1 H 2449	Nov. 15-13	Class rates B. & O. S. W. stations to points in Canada. Advance.

New York Central & Hudson River R. R.

2654 Cancels 2534	A25448 Cancels A24729	Oct. 10-13	Commodities N. Y. C. stations to Montreal.
2655 Cancels 2044	A25449 Cancels A20818	Oct. 10-13	Scrap iron, borings and turnings. Herkimer and Utica, N.Y., to Montreal.
2658 Cancels 2289	A25452 Cancels A22414	Oct. 10-13	Commodities N. Y. C. stations to Montreal and Montreal points.
2652 Cancels 1945	A25446 Cancels A19886	Oct. 10-13	Commodities N. Y. C. stations to Montreal and Montreal points.
2656 Cancels 2492	A25450 Cancels A24471	Oct. 10-13	Soda and Soda Ash, Syracuse and Solvay, N.Y., to points in Canada.
2657 Cancels 2085	A25451 Cancels A21024	Oct. 10-13	Gambier, N.Y., to Fredericton, N.B.
2641	A25423	Oct. 1-13	Aluminum sheets and rods, c.l., Niagara Falls, N.Y., to To-

Pennsylvania Railroad.

599	———	Oct. 10-13	Iron and steel articles P.R.R. stations to Montreal via. G.T.R.
600	———	Oct. 10-13	Iron and steel articles P.R.R. stations to Montreal, via C.P.R.

Chicago, Milwaukee & St. Paul Railway.

Sup. 9 111	Sup. 9 6454-D	Nov. 1-13	Commodities C., M & St. P. stations to points in Canada.

Canadian Pacific Railway.

974 Cancels 20	1639 Cancels 253	Nov. 15-13	Class rates to points in United States. Advance.
969 Cancels 9 tariffs	1633 Cancels 9 tariffs	Nov. 15-13	News printing paper c.l. Ottawa to points in U. S. Advance.

Michigan Central Railroad.

Sup. 20 1351	Sup. 20 7766	Oct. 1-13	Iron and steel articles from M.C. stations to points in Canada. Reduction.

AMERICAN BANK NOTE COMPANY

Incorporated by Act of the Parliament of Canada.



Head Office and Works—OTTAWA

Branch Offices—MONTREAL, TORONTO, WINNIPEG.

E. J. WELCH, President and Managing Director
HENRY W. S. DOWNS, Superintendent

EMMONS CROCKER, Vice-President
A. S. MORSE, Secretary and Treasurer

SCREEN PLATES







THE "Union" Bronze (best phosphorized cast metal) Plates for Sulphite Mills. The Standard Rolled Brass Plates. The "Union" Cast Metal Suction Plates.

We carry a large stock of blanks of the various sizes in both metals and can fill all orders promptly.

Old plates reclosed and recut by our process are practically as good as new and give better results than by any other process.

UNION SCREEN PLATE CO. of Canada, Limited

FACTORY: LENNOXVILLE, QUE. OFFICES: Lennoxville, Que. Fitchburg, Mass., U.S.A.

ESTABLISHED 1875

The Boiler Inspection and Insurance Co. of Canada

Continental Life Building, Toronto

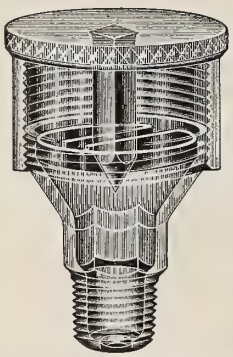
Issues Policies of Insurance after A CAREFUL INSPECTION OF THE BOILERS Covering LOSS OR DAMAGE TO PROPERTY and LOSS RESULTING FROM LOSS OF LIFE AND PERSONAL INJURIES. :: :: :: ::

Policies Guaranteed by THE HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY. :: :: ::

Assets for Security of Policy-holders, $4,552,020.43. :: ::

JOHN L. BLAIKIE - - - President
H. N. ROBERTS - Vice-President and Sec'y
GEO. C. ROBB - - - Chief Engineer
A. E. EDKINS - - Ass't Chief Engineer

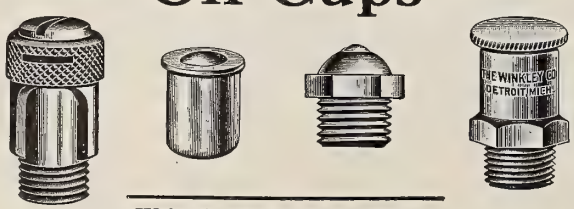
TRADE WINKLEY MARK



Grease Cups

We Manufacture a Full Line of Plain, Compression Leather Washer and Ratchet Grease Cups in any finish required.

Complete **Oil Cups** Line



Write for Catalogue and Prices

Manufactured by

Canadian Winkley Co. LIMITED

Windsor, Ont.

Michigan Central Railroad.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 29 1351	Sup. 29 7766	Sept. 15-13	Iron and steel articles, London, Windsor, Welland, etc., to points in Canada. Reduction.
2073 Cancels 1530 1966	9251A Cancels 8203 9251	Nov. 15-13	Billets, pig iron, etc., M. C. stations in U. S. to points in Canada. Advance.
2070 Cancels 2029	9337A Cancels 9337	Nov. 15-13	Sugar beets c.l. M. C. stations in Canada to Crosswell, Mich. Advance.
2062 Cancels 1730	9375 Cancels 8690	Nov. 15-13	Petroleum and products Buffalo, Black & Suspension Bridge, N.Y., to stations in Canada. Advance.
2058 Cancels 1597 1786	9365 Cancels 8374 8885	Nov. 15-13	Pitch and tar, London, Ont., to points in U.S. Advance.
2057 Cancels 1285	9364 Cancels 7633	Nov. 15-13	Ammoniacal liquor, c.l., London, Ont., to Detroit, Mich. Advance.
2094 Cancels 2033	9065D Cancels 9065C	Nov. 15-13	Class and commodity rates, M.C. stations in U. S. to points in Canada. Advance.
2093 Cancels 2043	9271B Cancels 9271A	Nov. 15-13	Commodities M. C. stations in U. S. to points in Canada.
2092 Cancels 1751	9402 Cancels 8764	Nov. 15-13	Commodities, Buffalo, Niagara Falls, etc., to points in Canada. Advance.
2088 Cancels 1918	9183A Cancels 9183	Nov. 15-13	Class and Commodity rates, M. C. stations in Canada to U. S. Advance.
2083 Cancels 1436 1688	9362 Cancels 7944 8542	Nov. 14-13	Binder twine, c.l., Welland to points in U.S. Advance.

Ottawa & New York Ry.

Sup. 3 643	Sup. 3 1097	Nov. 15-13	Class rates to U. S. points. Advance.
Sup. 1 638	Sup. 1 1081	Nov. 15-13	Class rates to points on N.Y.C. & H.R.R.R. Advance.
Sup. 2 736	Sup. 2 1262	Nov. 15-13	Class rates to points on N.Y.C & H.R.R.R. Advance.
Sup. 2 713	Sup. 2 1227	Nov. 15-13	Class rates to points in Boston & Albany R.R Advance.
Sup. 9 358	Sup. 9 720	Nov. 15-13	Class rates to points in U. S. Advance.
Sup. 4 629	Sup. 4 1068	Nov. 15-13	Class rates to points on N.Y.C & H.R.R.R. Advance.
Sup. 6 554	Sup. 6 927	Nov. 15-13	Class rates to points on Delaware & Hudson Co. Advance.
Sup. 1 682	Sup. 1 1176	Nov. 15-13	Class rates to Buffalo, Black Rock, and Suspension Bridge, N. Y. Advance.
Sup. 8 94	Sup. 8 418	Nov. 15-13	Class rates to points on N.Y.C & H.R.R.R. Advance.
Sup. 2 653	Sup. 2 1112	Nov. 15-13	Class rates to points on Boston & Maine R.R. Advance.
973 Cancelling 675	1638 Cancels 1163	Nov. 15-13	Class rates to points on Rutland R.R.

BRITISH AMERICAN BANK NOTE COMPANY

LIMITED

Incorporated 1866

CAPITAL - - - $500,000

Most modern and complete appliances for the production of

BANK NOTES, BONDS, STOCK CERTIFICATES, POSTAGE AND REVENUE STAMPS

and all Documents of a monetary value

All work executed by this company is accepted by the London New York, Boston and other Stock Exchanges

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Royal Insurance Bldg.
2 Place D'Armes Square - - - - MONTREAL
Traders' Bank Building - - - - TORONTO



FIREPROOF BUILDING.

"STEEL GRIP" PAINTERS' BRUSHES

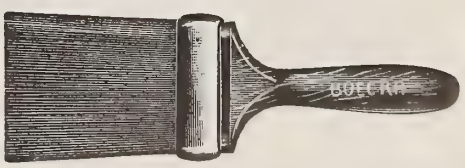
Are so constructed as to bring the bristles together at the centre, producing a springy and elastic action which enables the user to spread the paint or varnish more evenly. This means a saving in the amount of Paint and Varnish used.

Our Guarantee

This BRUSH *is made of the best "100% pure" bristles, under our patent* STEEL-GRIP *process, which makes it absolutely secure If found defective in any way after proper use, it will be replaced without charge.*

100% Pure Bristles

The Boeckh Bros Company Ltd



(Patented 1910)

"The Bristles Can't Come Out"

Are You Sure Your Electrical Wiring is Safe?

There is but one absolutely safe method of wiring. Instal a CONDUIT SYSTEM, it will eliminate all risk of Fire.

"Galvaduct" & "Loricated"
"Conduits"
HAVE NO EQUALS

Conduits Company Limited
TORONTO ***MONTREAL***

Jones & Moore Electric Co.
LIMITED
294-300 Adelaide St. West - Toronto



Manufacturers of Dynamos and Motors

Over 3000 Machines now in Successful Operation,
Estimates Furnished on Complete Installations
Repairs Promptly Performed.

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

828. **Asbestos, Talc., &c.**—A prominent firm in Vienna, Austria, is open to represent Canadian mining companies producing the above articles, for which there is a large market in Austria. The firm is well recommended.

829. **Feedstuffs, Brewers' Grains, Malt House Waste, etc.**—Two old-established importing houses in Bremen and Stettin, Germany, specializing in feedstuffs of all kinds, are prepared to represent reliable Canadian exporting houses; c.i.f. quotations desired.

830. **Feedstuffs, including Mill Offals, Brewers' and Distillers' Dried Grains, Malt Culms, etc.**—Two important firms in Hamburg, Germany, specializing in feedstuffs, wish to hear from Canadian mills and exporters in a position to ship at regular intervals. Quotations c.i.f. Hamburg desired.

831. **Corundum.**—An Austrian merchant is seeking supplies of corundum, and desires to get into touch with Canadian producers and shippers.

832. **Flax Fibre.**—A Liverpool firm asks to be placed in correspondence with shippers of flax fibre in Saskatchewan and Alberta.

833. **Turned Wood and Birch Dowels.**—A large Manchester firm importing wood products requests to be placed in communication with wood turners and also with exporters of birch dowels in Canada.

834. **Pulp Board.**—A Glasgow firm who are open to contract for regular supplies of pulp board, invite quotations from Canadian manufacturers.

835. **Wrought Iron Tubes.**—A London firm desires the addresses of Canadian manufacturers of wrought iron tubes in a position to fill export orders.

836. **Agricultural Implements.**—A manufacturers' agent at Odessa desires to get into communication with Canadian manufacturers of agricultural implements and other goods for which there would be a market in Russia.

837. **Pulpwood.**—A large importing firm in Brussels, Belgium, wishes to enter into communication with exporters of pulpwood from Canada, with a view to opening up a direct trade between the two countries.

838. **Linseed.**—A Zaandijk, Holland, firm wishes to enter into communication with Canadian exporters of linseed.

FOR SALE.

Old-established and well-known Canadian engineering company doing large business from coast to coast—an excellent opportunity for investors or for anyone wishing to extend operations in Canada by taking over a going concern with complete plant, staff and extensive connections. All communications strictly confidential. Address Box 1, "Industrial Canada."

Ormsby-Lupton-Steel-Sash

ROLLED STEEL—LOW CARBON MEMBERS
ALL SECTIONS—SOLID—ONE PIECE
ACCURACY IN GLASS SIZES GUARANTEED
MUNTINS LOCKED MAKING JOINTS INSEPARABLE

Ormsby-Steel-Partitions Pond Continuous Sash
MINIMUM COST—MAXIMUM STRENGTH AND LIGHT

THE A. B. ORMSBY COMPANY, LTD.

TORONTO Associated with WINNIPEG

THE METAL SHINGLE AND SIDING COMPANY, LIMITED

Preston Montreal Saskatoon Calgary

AGENTS

Vancouver, N. J. Dinnen & Company
Victoria " "
Winnipeg, " "
Calgary, " "
Saskatoon, Mackenzie & Thayer
N. Battleford, Mackenzie & Thayer
Edmonton, F. C. Coombs
Regina, Robson Supply Co.
Moose Jaw, General Builders Supply Co.
Prince Albert, Bowman Supply Co.
Quebec, J. A. Bernard
Ottawa, Canadian Agency & Supply Co.
Montreal, Stinson Reeb Builders Supply Co.
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Packard Mazda Lamps

DRAWN WIRE FILAMENT FRAGILITY OVERCOME

Suitable for Factory Lighting

A Great Saving of Current and More Efficient Illumination

THE PACKARD ELECTRIC CO., Ltd.

FACTORY—ST. CATHARINES

General Sales Office—26 Adelaide Street West, Toronto N.W. Office and Warehouse—Winnipeg

GEORGE E. SHAW ROBERT NORTHEY

THE TELFER
MANUFACTURING COMPANY

Duncan and Pearl Sts., TORONTO, CAN.

Manufacturers of
All Kinds of
Paper Boxes

Folding and Solid Paper Boxes
for all purposes

The David Smith
Engraving & Lithographing Company

FORMERLY OF THE FIRM OF ROLPH, SMITH & CO

Adjoining Toronto Railway Chambers

Engravers and Lithographers,

Type Printers,

Bank and Commercial Stationers,

Manufacturers of High Class Calendars and Advertising Novelties,

Makers of Canadian Safety Paper for Checks and Drafts

56-58-60 CHURCH ST.

Telephone
Main 5612 & 5613

Private Branch Exchange
connecting all Dep'ts.

AMONG THE INDUSTRIES

Wm. F. Fraser, Ottawa, is building a $6,000 factory.

Walter C. Rumpel will build a factory in Berlin, Ont.

J. N. Doods will erect a kniting factory in Orangeville.

Avon Hosiery, Limited, Stratford, will extend their plant.

The Dusbane Mfg. Co. are building a factory in Ottawa.

H. L. Florence is building a $30,000 warehouse in Ottawa.

R. Crean & Company will build a $40,000 factory in Toronto.

A $75,000 hotel is planned by B. G. Walker, at Edmonds, B.C.

L. E. Moulton, & Co., Montreal, contemplate building a factory.

Campbell Bros. and Wilson are building a warehouse in Regina.

J. R. Booth will erect a lumber mill, costing $100,000, in Ottawa.

Specialties Limited, Montreal, are building a $200,000 factory.

Evans Bros. will erect a $25,000 addition to their piano factory.

A garage is being built for the Montreal Autobus Company, Montreal.

Tudhope, Anderson & Co. are building a $45,000 warehouse in Regina.

A bank building is being erected in Montreal for the Royal Bank.

A factory costing $15,000 will be built by Jas Cowan & Co., London, Ont.

V. Boydell & Co., Manchester, England, will build a factory in Montreal.

A paper mill will be built in Winnipeg by the Austin Paper Mfg. Co., Ltd.

John Dawson will erect a brick plant, costing $50,000, in Niagara Falls.

The Fowler's Canadian Company's new quarter million additions to their plant in Hamilton will be completed in about a month's time. They will have a killing capacity of eight thousand hogs and six hundred cattle weekly.

The Richards-Wilcox Canadian Company, Limited, have established a branch office and warehouse at 448 St. Paul Street, Montreal, in charge of our Vice-President, Mr. Alexander Thurber, for the convenience of the Eastern Canada trade, and will carry at that point a large stock of hangers and track for sliding doors.

TOOL ROOM PARTITIONS



MACHINERY GUARDS, WINDOW GUARDS, and WIRE WORK of every description . . . . .

WIRE ROPE
ROPE FITTINGS

MANUFACTURED BY **THE B. GREENING WIRE CO., LIMITED**

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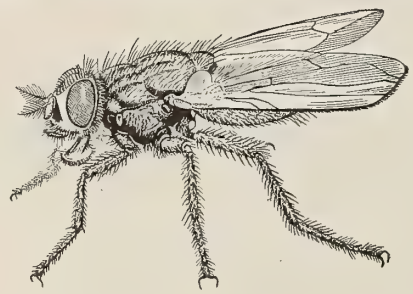
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IN THIS WAR ON FLIES
THE GREATEST HELP IS

TANGLEFOOT

THE NON-POISONOUS
FLY DESTROYER

Catches fifty billion flies each year. Vastly more than all other means combined.

BEWARE OF POISONS. Every year many children are killed by drinking fly poisons. The poison is an added menace and does not kill the germs on the fly. Poisoned flies drop into the food you eat, the baby's milk, everywhere.

TANGLEFOOT is non-poisonous and destroys flies by the surest, safest method. You can place it anywhere with confidence. Poisons and food stuffs, on the other hand, should be kept far apart.

The Bank of Nova Scotia are erecting a bank building in St. George, N.B.

The Electric Steel and Metals Co., Ltd., will build a factory at Welland, Ont.

A $45,000 manufacturing building is being built for Robert Neville, Montreal.

The Bank of Nova Scotia is building a $30,000 branch building in Prince Albert.

Renchard-Elmes Shirt and Tie Company will build a factory in Windsor, Ont.

The Ford Automobile Company will build a four storey factory in Montreal.

The Marcil Trust Co. will erect an office building, costing $350,000, in Montreal.

The Stratford plant of the Canadian General Electric Company will be extended.

The British Columbia Pottery Co. will build a $100,000 pottery in Victoria, B.C.

Daniel Senecal, Wyoming, will build a $5,000 box, basket and woodenware factory.

A $10,000 rendering plant will be built in St. Boniface, Manitoba, by A. C. Turner.

The Lake of the Woods Milling Company contemplate building a flour mill in Calgary.

An extension is being built to the organ factory of the Goderich Organ Co., Goderich.

The Lyndville Creamery Association will build a pasteurizing plant in Masonville, Que.

Calgary Flour Mills Company, Limited, contemplate building a $1,400,000 flour mill in Calgary.

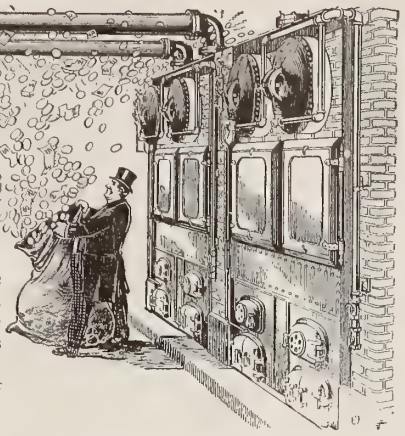
The Forest Basket Factory will double its capacity by building an extension to its plant in Forest, Ont.

In the best German forests the annual expense is $13 an acre, but the gross returns are as much as $24; thus they yield a net return of $11 an acre each year.

The work of erecting the superstructure of the Atlantic Sugar Refineries, Limited, building, St. John, N.B., has begun. The plant will cost one million dollars. Steel for the first building will be in place by the end of August.

The Allis-Chalmers Manufacturing Company through the Canadian Allis-Chalmers, Limited, Toronto, has just issued a neat little bulletin describing the Allis-Chalmers friction clutch couplings and pulleys. The bulletin is No. 4032.

The paint factory of the Great West Iron, Wood & Chemical Co., established in Prince Albert, is now in full operation with a plant capable of turning out 1,000 gallons of finished products per day. The factory is a four storey building 100 feet by 150 feet, with a floor space of 20,000 sq. ft., and contains the most modern machinery.



Stop making the Coal Man Rich

DO you realize that real money is literally being pulled out of your pocket and put into the pocket of the coal man every time a degree of heat radiates from, or a pound of steam condenses in, the steam pipes of your plant? And do you know that such losses are entirely due to the inefficient insulation afforded by ordinary pipe covering? Actual tests *prove* this to be so.

You can eliminate nearly all this loss because *actual tests prove* that *over* 75 per cent. of such losses can be prevented by the almost perfect insulating efficiency of

JM ASBESTO-SPONGE FELTED Pipe Covering

This covering is the most efficient insulator because it contains the greatest number of "dead air" cells. And "dead air" you know is recognized by engineers all over the country as the most efficient insulator.

J-M Asbesto-Sponge Felted Pipe Covering is made of many layers of thin felt composed of pure Asbestos fibre and finely ground sponge. It is tough and flexible, so that vibration, moisture, heat or rough usage, will not cause it to break, crack, crumble, or lose its insulating efficiency. Absolutely fire-proof. Can be taken off and replaced without injury.

Write our nearest Branch for sample, interesting test data, and Catalog No. 100.

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Though hard and semi-rigid, LINABESTOS can readily be worked with carpenters' tools and nailed direct to the studding. It is either applied smooth side out and panelled with strips of wood or of the same material, or put on rough side out and covered with a thin skim coat of plaster.

Walls and ceiling of LINABESTOS will confine an ordinary fire to the room where it starts, and check the spread of even the worst blaze. They are sanitary, easily decorated, non-conductors of heat, practically everlasting and inexpensive. Write for folder No. 13 giving full particulars.

ASBESTOS MANUFACTURING CO., LIMITED

Address E. T. Bank Bldg., 253 St. James St., Montreal - Factory at Lachine, P.Q. (near Montreal)



The Durbin Drain Pipe Connector Company are considering the erection of an office in Montreal.

The Northern Navigation Company are making alterations to the extent of about $10,000 to their head office in Sarnia.

Kellogg's Toasted Corn Flakes, of London, are building an addition which will nearly double the capacity of their plant.

The following industries have located in Thorold during the past year: The Bilkington Glass Co., of St. Helens, England; the Ontario Paper Mills, and the Beaver Company.

The Northern Aluminum Company, Limited, have just established a plant in Toronto, where they will do their fabricating work, such as aluminum stampings, spinnings and castings. They will also carry considerable stock as well at their large reduction plant, Shawinigan Falls, Que.

Ottawa and Hull Power and Manufacturing Co. have decided to increase their power plant by the addition of two water-wheel type alternators, each 6750 K.V.A. 120 R.P.M., 2300 volts, and also two transformers, each 6750 K.V.A. 2300-12000 volts. The contract for this addition has been awarded to the Canadian General Electric Co., Limited.

A new industry is to be located immediately in Prince Albert, as the Royal Farm and Machinery Co., of Manitoba, have secured a free site of ten acres from the city and will at once proceed with the erection of a factory and plant for the manufacture of all kinds of farm machinery, from a small cutter bar to a binder. The company will invest one hundred thousand dollars in their works and will have an initial payroll of forty men. The headquarters of the Canadian Branch will be removed from Winnipeg to Prince Albert and large extensions with an increased number of employees will be made annually for five years.

The Hamilton By-Product Coke Ovens, Limited, capitalized at $1,000,000, has been incorporated in Hamilton. While considerable local capital will be invested in this enterprise the majority of the stock will be held by United States capitalists. P. V. Burns, of the Ontario Pipe Line Co., and John G. Gauld, of Nesbit, Gauld and Langs, are two of the local men interested.

The Company will manufacture coke for smelting, foundry, minor industrial and domestic uses and will provide a permanent supply of gas for manufacturing and domestic use. The plant will give employment to about three hundred men, and the allied companies that will be formed to utilize the by-products—tar, ammonia sulphates and benzol—will also employ a large number of men. The initial investment in plant and land will be $1,500,000, and the first unit will consist of 50 ovens, each of 16 tons capacity, operating 18 hours coking time. There will also be erected by-product apparatus for gas separation, coal preparing plant, power compressing and water pumping plant, etc., and a 5,000,000 cubic feet gas holder.

The plant will be electrically equipped and will use between 700 and 1,000 horsepower per day. It will carbonize 1,000 tons of coal per day for 365 days in the year, which will produce about 700 tons of coke per day. The company will keep a six months' supply of coking coal, which will be imported from Pennsylvania or West Virginia, on hand at all times, thus safeguarding the consumers of gas and coke against the annual shortages caused by railroad blockages and strikes at the mines. This coal will at present be brought in by rail, and on the completion of the new Welland Canal and the Hamilton Harbor Improvements, will be brought in by all water.

INDUSTRIAL CANADA

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INCORPORATED.

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Names on Factories.

IT is an extraordinary thing that a manufacturer will spend large sums of money in advertising his business and yet will neglect to place the name of his company and the articles that he manufactures in a conspicuous place about his factory. In travelling through villages, towns and cities in Canada, it is not unusual to see a large manufacturing plant and to be unable to discover either the name of the firm or the articles manufactured. When a factory is situated within view of railway or boat traffic, it would surely be good advertising to display prominently the firm's name and its goods. This lack of enterprise in securing free publicity is also seen in urban centres. As a rule, if a village or town is on a railway the name appears on the station, but the municipal authorities deserve no credit for this attention to the public. Every council should see that the name of its municipality is posted conspicuously at the main entrances by rail, water or road.

In this connection, commendation is due Dr. Coulter, Deputy Postmaster-General, who has recently instructed postmasters to erect in front of their offices signs bearing the names of their communities.

Proposed Workmen's Compensation Act for Ontario.

IT is apparent to all who have studied the question of Workmen's Compensation that Sir William Meredith, Commissioner of the Ontario Government of the Ontario Government, has entirely misapprehended the nature of the task which was assigned to him. No greater commission has been entrusted in Canada to one man and it is regrettable that Sir William, instead of approaching the problem with experimental prudence, has drafted a bill for the Ontario Legislature which is chiefly remarkable for recklessness and impracticability. The original proposal of the manufacturers was that a system of workmen's compensation of limited scope should be introduced and that it should be gradually extended as experience and expediency warranted. Sir William has utterly ignored the business principle of proceeding step by step. His recommendations involve the establishment of a vast system of accident insurance, which is to be put suddenly into operation. A Government Commission would have to collect all premiums, to adjust all claims in accidents occurring in concerns coming under the following comprehensive definition: "Manufacturing shall include making, preparing, altering, repairing, ornamenting, printing, finishing, packing, assembling the parts of and adapting for use or sale any article or commodity." According to this definition, who is not a manufacturer?

The magnitude of the undertaking seems to have staggered everybody except Sir William and the labor unions, whose enthusiasm may wane when they realize that the establishment of the proposed system may cripple the employers whose prosperity regulates their own.

A sharp contrast to Sir William's reckless proposal is seen in the method followed by the Ontario Hydro-Electric Commission, which builds a line, makes it pay, and then reduces rates. If the Commission had adopted Sir William's method, it would have proceeded to electrify the whole Province before it had discovered, from practical experience, the cost of operation and the needs of individual communities.

It is difficult to believe that Sir William could have had any appreciation of what was involved in the practical working out of the theories which he has placed upon paper.

Parcel Post Pays.

THE profits on the parcel post system of the United States for the current year of operation will amount to about $30,000,000, according to the New York *Times*. As this is double the estimated profit, the support given the Government is apparent. But the support given the Government was only indirect; if there had not been a great need for the system there would have been no profit.

The handsome surplus of the United States parcel post should encourage the Canadian Government to plan a system for this country which will be both comprehensive and efficient. As Canada is almost the only civilized country in the world without parcel post, we are far from entering an undiscovered field of effort in establishing it and should benefit from the experience of those countries where it has been in successful operation.

The Iniquity of the Closed Shop.

A DECISION has been made recently by an Indiana judge, and reported in *American Industries,* upholding the contention of the Employers' Association of Indianapolis that a monopoly of labor by a closed shop agreement is illegal.

This decision is one of the signs, increasingly numerous of late, that the tyranny imposed by the labor unions in the United States is breaking down.

Four years ago, Elbert Hubbard, convinced that the open shop was a menace to his country's industrial life, wrote the following article, which was one of the most destructive deliverances made against it:

"To belong to a union is all right, but to say that the man who does not belong to a union shall not be allowed to labor, is all wrong. Then to go farther and say that the man who employs a man who does not belong to a union shall be starved out of business is absurd—and worse. The closed shop stands for tyranny and oppression. It blocks human evolution, destroys initiative and fosters hate. Unionism stands for disunion. It perpetuates distrust, and makes division permanent. It places an injunction on progress, and chains the laborer to his bench. It organizes enmity, and makes a system of suspicion. Unionism does not strive to get the work done—its intent is to make it last. And it never means better work, because better work demands greater devotion, more patience, a finer loyalty. The union keeps in your shop workmen you otherwise would not have, unless they mended their ways and manners. It makes the slipshod perpetual, and the shiftless everlasting, by placing a premium on distrust and separating the employer from the employed. They never get acquainted."

It would be a singular thing if the United States, a nation dedicated to liberty, would endure the closed shop. No Anglo-Saxon people will tolerate it long. Although Canadian industry has suffered from the closed shop, it has never been brought into complete subjection. But we are familiar with the half-closed shop where the employees act according to this principle: "This is an open shop, but if a new man does not join our union we'll make things so interesting for him that he will either join or quit." They proceed to make things interesting by mislaying tools, by refusing information, by indirect insults, by an accumulation of petty tortures which usually achieve either of the desired results. The unfortunate joins or quits.

The trade union has its place in industry, and, governed by tolerance and intelligence, may benefit both employee and employer, but the closed shop or the half-closed shop has no place, save among the enemies of social and industrial progress.

The Canadian National Exhibition.

THE decision of the Directors of the Canadian National Exhibition to submit a by-law to the people of Toronto, on January 1st, asking for $600,000 for new buildings, will meet with the approval of manufacturers, especially as part of the money will be spent in erecting a machinery hall. The directors have also recommended that a special process of manufacture exhibit will be arranged for the 1914 exhibition. As an annual combined illustration of, advertisement for and record of industrial development, the Canadian National Exhibition should continue to receive the support of the manufacturers of this country.

Farmers Injured by Proposed Compensation Law.

THE farmers of Ontario will be placed in a perilous position if the Workmen's Compensation law, drafted by Sir William Meredith, passes the Legislature in its present form. Comparatively few farmers or their representatives realize this fact, and remain passive under the misapprehension that only manufacturers will suffer. It is easy to endure the troubles of others. If a farmer is sued for damages, arising out of the death or injury of one of his employees, the present law allows him three defences. The farmer can plead that the accident was due to the carelessness of the employee himself, or to the negligence of another employer, or to one of the unavoidable risks of farming.

According to section 101 of the proposed law, the farmer would not be allowed to set up any of these defences. In other words, Sir William Meredith has greatly increased the farmer's liability for damages by removing his safeguards against litigation, and by exposing him to innumerable common law actions for unlimited damages.

For example, a farmer's hired man leaves a vicious bull carelessly tied. The bull gores another hired man. The proposed law would make the farmer liable for damages.

Or, suppose the farmer's hired girl throws a piece of newspaper out of the door. The paper whirls in the wind, causing the farmer's horses to bolt and to injure the hired man who is driving them. Sir William Meredith would make the farmer liable for damages.

Suppose that a farmer's team of horses run away because the hired man forgets to tie them. The man seizes the

bridle of one of the horses, is dragged, is thrown violently against a post, and is killed. If the jury choose to find from the evidence that the farmer was negligent in trusting the horses to the man's care, or that the harness was defective, or that the post was located in a dangerous position, the farmer would be made liable, although the jury, in this case, would be able to compare the negligence of the farmer with that of the hired man in estimating the damages and to fix the amount accordingly.

These illustrations serve only as an indication of the number of legal actions which might be brought against the farmer by employees who were injured while in his service, or by the dependents of deceased employees who were killed while in his service.

If the farmers of Ontario realize in time the position in which the proposed bill will place them, the Legislature will never pass it in its present form.

Workmen's Compensation Will Hit Newspapers.

THE newspapers are grouped with all other printing offices and are required to pay premiums based on their pay rolls, by the proposed Workmen's Compensation Bill, recently laid before the Ontario Government by its special commissioner, Sir William Meredith.

The application of the proposed law will impose a heavy burden upon newspapers, especially country weeklies.

If any newspaper employee is killed, whether a pressman engaged in his work, or a reporter in a fight with a politician, or a stenographer from blood-poisoning contracted in sharpening a pencil, the dependents, under the proposed bill, would receive compensation in the form of a monthly pension for life of from $20 to $40. If the employee is injured, whether the injury is temporary or permanent, partial or total, Sir William Meredith says that he should receive 55 per cent. of his former earnings for life or until recovery. Earnings above $2,000 are not considered, so that the maximum amount of compensation would be $1,100 per annum. Highly paid editors, managers and presidents of a metropolitan newspaper, would also receive compensation based on $2,000 of their salaries.

The foreman of a country weekly, getting $800 per year, is permanently disabled. Sir William's plan would give him $440 per year for life out of the fund. A bad fire breaks out in a metropolitan daily. Among those killed and injured two employees getting over $2,000 per annum and ten getting an average of $1,000 per annum are permanently disabled. The total benefits paid under Sir William's bill would amount to $7,700 annually. Suppose that the permanently disabled persons lived on the average twenty years. A rough estimate would make the total amount paid out of the common newspaper fund, during twenty years, $154,000, in addition to generous pensions paid to the dependents of those killed and to those who were temporarily disabled.

The newspaper business is not so profitable that it can regard the imposition of such heavy compensation with equanimity.

The Railways and Sir William.

THE railways have been given special treatment by Sir William Meredith, Special Commissioner on Workmen's Compensation for the Ontario Government, in the draft act which he has presented to the Legislature. They are made individually liable to their employees, and hence are in a position to discourage the bringing of claims. Moreover, they have the privilege of commuting their compensation for 75 per cent. of its value, and are allowed to contract themselves out of the Act for the first four weeks of disability.

There is no justification for treating the railway companies better than other extensive employers of labor, such as the great industrial concerns.

One of the strange anomalies of the Bill is that the express companies and railway news agencies are not classed with the railways.

Suppose that a commercial traveller for a manufacturing concern, a railway baggage man, and an express man are all totally disabled in the same railway car in a wreck. Sir William Meredith's bill provides that the traveller shall apply to the Government Commission for his compensation, and shall receive a weekly cheque from the Commission out of the funds raised from that branch of manufacturing in which his concern is engaged; that the baggage man shall apply to the Government Commission, which will adjust his claim and place his name on the weekly pay sheets of the railway which employs him; and that the express man shall bring an action at common law against either the railway or the express company, or both, as advised, for unlimited damages in the courts.

Saskatchewan and the Bonus System.

AS the question of removing the powers of municipalities to bonus industries is now before the Legislature of Saskatchewan, those municipalities in the Province which believe in the system are awaiting the result with interest. Some of them are taking action. The Board of Trade of North Battleford has forwarded a resolution saying: "As we understand that legislation is at the present time proposed, whereby the powers of cities to extend bonuses for the encouragement of industrial development are to be taken away, be it resolved that the Board of Trade of North Battleford places itself on record as being sincerely opposed to such drastic and unwarrantable action."

While INDUSTRIAL CANADA remembers that some industries which have received bonuses have been successful, the system, in a general way, cannot be recommended. A manufacturing concern which has the necessary capital, ability and experience does not depend on the size of bonuses in selecting a site. It will consider shipping facilities, labor supply, accessibility to raw materials and other economic questions. Experience has shown that, as a rule, the bonus system does not attract to municipalities the permanent industries which they are anxious to secure.

Moreover, it encourages unscrupulous promoters and practically insolvent companies to defraud municipalities and to disappoint their ratepayers.

In special cases, however, a bonus might be justified, and to such cases a general prohibitory law would prove a hardship—and is therefore undesirable.

But the Legislature should control all bonuses by requiring municipalities to apply for permission to grant them and by withholding this permission unless assistance is justified on economic grounds.

Such regulations would permit the granting of bonuses to deserving firms and would protect municipalities from the undeserving.

Cost of Agricultural Implements in the West.

WESTERN grain growers frequently complain that the cost of agricultural implements is higher in Western than in Eastern Canada. In a general way, their statement is true, but they overlook the fact that agricultural implements cost more in Western than in Eastern Canada, not as a result of a conspiracy among Eastern manufacturers to wring additional profits from the West, but on account of certain clearly defined economic causes. These causes are higher freight rates, higher cost of collecting payments, higher cost of building or renting warehouses, and the higher cost of maintaining travellers.

A similar condition of affairs, with corresponding causes, exists in the Western States as against the Eastern States.

Eastern manufacturers are doing a great deal to equalize prices; first, by supporting a demand for a readjustment of freight rates; second, by establishing branch factories in Western Canada; and third, by encouraging mixed farming in the Western Provinces.

West Gets Free Wheat.

THE grain growers of the West have asked more or less persistently during the last few years that some arrangement be made by which their wheat could enter the United States free of duty.

In a measure, the new tariff law of the United States has granted their wish. While retaining the original drawback arrangement by which 99 per cent. of the duties paid on imported material shall be refunded when the products manufactured from this material are exported, an important new clause has been added. This provides that where the principal product and by-products result from the manipulation of imported materials and only the principal product is exported, then on the exportation thereof there shall be refunded as drawback the whole of the duty paid on the imported material used in the production of both the principal and the by-product less 1 per cent.

How does this affect the Canadian wheat grower?

A United States flour miller imports Canadian wheat and pays the duty. He can grind this wheat in his mill, sell the bran and other by-products in the United States, export the flour and still receive back 99 per cent. of the duty paid on the imported wheat. This means that practically free admission into the United States has been provided for Canadian wheat which is imported to manufacture bran and mill feed for "home" consumption, and flour for export.

Sir William's Huge Benefits.

SIR WILLIAM MEREDITH, Commissioner of Workmen's Compensation for the Ontario Government, has estimated the benefits which employers should pay to injured employees with the large generosity which often warms a man's heart when he is spending other people's money, especially if the other people are large corporations. It should be remembered, however, that at least some employers are poor.

In Manitoba, British Columbia and Nova Scotia, the maximum amount of compensation is $1,500. In Alberta, it is $1,800; and in Saskatchewan and Quebec, $2,000. Under the draft act for Ontario, the maximum is anywhere from $15,000 to $50,000.

Guarding Factory Workers.

A MANUFACTURER is concerned with the actions of his employees when they are not at work as well as when they are at work. The way they spend their leisure hours, the food they eat, the houses they live in, their various troubles, all affect the employer indirectly, because they help to determine the efficiency and reliability of employees. A good workman with bad habits will soon be a poor workman. A tenant of an insanitary house will have his efficiency impaired. The poorly-fed man will have his vitality lowered. Therefore, if only to safeguard his own interests, the manufacturer must do all he can to protect his employees and to improve their material condition. There is a greater responsibility. The factory town attracts employees from everywhere. Good and bad are mingled indiscriminately. Every manufacturer of decent instincts feels a responsibility to do all in his power to protect the characters as well as the bodies of his workers.

In Kansas City there is a department of the municipal government called "the board of public welfare," which has attempted to solve social and industrial problems by establishing the following:

The municipal pawnshop, which is putting the extortionate pawnbrokers out of business.

The welfare loan agency, which is ruining the loan sharks.

The free legal aid bureau, where the poor man can go to get protection in his legal rights.

The municipal employment bureau, which got 27,000 jobs for men last year.

The municipal rock quarry, which furnishes employment for men in the winter until they can find permanent situations.

The municipal farm, on which prisoners are given wholesome work and where many of them are reclaimed.

The parole department, under which men have earned for their families $200,000 in a period when otherwise they would have been a charge on the community.

The inquiry into women's wages, which has thrown a sane and wholesome light where such a light was needed.

The dance hall inspection, under which scores of young people are saved each week from coming under evil influences.

The housing investigation, which has presented facts that are bound to result in a general cleaning up of insanitary conditions.

In the majority of the factory cities and towns of Canada may be found the conditions which the Kansas City board have tried to remedy. Manufacturers who study these conditions and who succeed in alleviating them will confer a service on their communities and benefit themselves.

Smoke at Fire Drills.

SOME manufacturers in the United States have decided to put smudges in the basements of their factories so that the smoke will make fire drills realistic. Perhaps the danger of a panic, which so frequently breaks out at the sight of smoke, might be averted in some cases. On the other hand, employees might grow so accustomed to the appearance of the sham fire that they might straggle when the danger was real. In other words, if the smoke cried, "Wolf! wolf!" too often, employees might disregard him when he came.

Mr. Foster in New York.

SPEAKING to the Canadian Club in New York in November, Hon. Geo. E. Foster, Minister of Trade and Commerce, informed his audience that Reciprocity between Canada and the United States was not yet a dead issue. Mr. Foster did not mean, however, that the ill-starred agreement which expired on September 21st, 1911, would be revived. He referred to a different sort of Reciprocity. The reciprocity of migration had sent into Western Canada about 130,000 United States citizens in return for the Canadians who went south during the black years of this country's history. The factories of the United States had attracted many Canadians in the past; now Canadian factories were bringing into Canada the skilled workers of the United States. The Underwood Tariff, said Mr. Foster, was only another step in reciprocating the generous tariff treatment given to the United States by Canada for many years. Complete reciprocity in tariffs, however, would require another cut to bring that of the United States down to the level of the Canadian tariff. At present, the per capita purchases of the United States in Canada amounted only to $1.10; while those of Canada in the United States amounted to $50. Mr. Foster also referred to the $600,000,000 of United States capital invested in Canada, reciprocating the former transfers of Canadian money across the border.

This is the sort of reciprocity which will be of real benefit to Canada.

Good Roads.

BAD roads increase the cost of living, which is higher at present in Canada than in any other country. We are beginning to study the problem of road improvement. How the United States is dealing with the question is shown by M. O. Eldridge in the last issue of *Good Roads Canada*. He quotes from Bulletin No. 41, entitled, "Mileage and Cost of Public Roads in the United States in 1909," which has just been issued by the Office of Public Roads of the United States Department of Agriculture. This Bulletin contains statistical information in regard to the total mileage of public roads and the mileage and average cost of the various types of improved roads in the different states. Similar information was published by the Office of Public Roads for the year 1904, as Bulletin No. 32. From these two bulletins it is now possible to obtain comparative data showing the progress made in road improvement in the various states during the five-year period, 1904-1909.

The total mileage of public roads in the United States and the mileage and percentage of improved roads for 1904-1909, as shown by these two bulletins, are as follows:

	1904.	1909.
Total mileage of all Public Roads	2,151,379	2,199,645
Total Mileage of Gravel Roads ..	109,905	102,870
Total Mileage of Stone Roads ...	36,818	59,237
Total Mileage of Sand-Clay	2,980	24,601
Brick, shells, oiled-earth, bituminous, etc.	3,827	3,768
Total Mileage of Improved Roads	153,530	190,476
Percentage of all roads improved	7.14	8.66

From this table it will be seen that the total of all public roads in 1909 exceeds the total for 1904 by 48,266 miles. This is due in part to the establishment of new roads, partly to a reclassification of roads in some of the states, and partly to the fact that a large mileage of roads was laid out in the new State of Oklahoma. The mileage of stone roads increased 22,419 miles during the five-year period, while during the same time 21,621 miles of sand-clay roads were constructed. There was a slight decrease in the mileage of gravel roads reported, due principally to a reclassification of the roads in some of the states. Mileage of oiled earth and shell roads reported in 1909 was also somewhat less than in 1904.

The figures showing the amount of road improvement done in Canada have yet to be compiled. We doubt if they could be found and if they were found they would be so insignificant that they might be lost. Good highways are as necessary as railroads. We must have them.



This Photograph Shows that Flax Growing has Reached Greatness in the West

THE WEST'S FIRST FLAX FACTORY

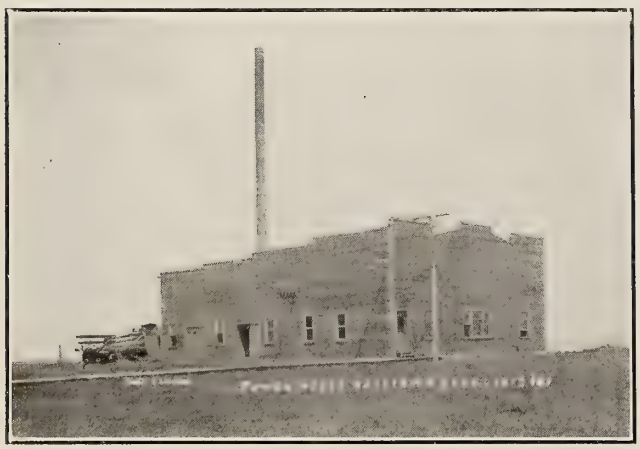
By NORMAN LAMBERT

IN a very interesting and illuminating pamphlet, the Winnipeg Industrial Bureau recently published the results of a special investigation into the flax industry, showing the wonderful possibilities connected with the manufacturing of different flax products in Western Canada. The appalling waste of valuable flax fibre each year is emphasized in the statement that, in 1913, the flax fields of the West have produced over two million tons of flax straw, representing four hundred thousand tons of fibre, and that all of this wealth of raw material is now in ashes and scattered to the four corners of those broad western plains.

There is, however, one little spot on the plains where flax straw is not regarded as rubbish, to be burned and got rid of as soon as the harvest is over. Away south-west of Saskatoon, on the Goose Lake branch of the Canadian Northern, at the bright little town of Rosetown, flax straw is being used for purposes of manufacture in the first flax factory to be established anywhere in Western Canada. The Flax Decorticating Company, of Rosetown, representing Western Canadian interests, and capitalized at $500,000, will stand as the pioneer institution in flax manufacturing in the Prairie Provinces.

A Rich Flax Country.

And nowhere could the industry have had its beginning more naturally. Rosetown is in the very centre of the richest flax district in the entire western country. During the past crop season, the writer spent all of one fine August day driving through the miles of grain fields which are tributary to that town; and on all sides, as far as the eye could see, were vast stretches of blooming flax. The whole landscape at that time was one beautiful ocean of blue. And upon inquiring, in terms of statistics, one found that within a radius of ten miles around Rosetown, over twenty thousand tons of flax straw could be secured. At present the capacity of the flax factory in the town is about 8,000 tons of straw per annum, so that out of the million tons of straw which are consigned to the bonfire every year in Saskatchewan alone, only a very small portion is being saved for manufacturing.



The West's First Flax Factory

The flax fibre plant at Rosetown is not extensive, as may be judged from its limited capacity; but it is none the less interesting on account of its size. The largest farm implement plant in Canada had its origin, hardly more than a quarter of a century ago, in the back woodshed of a villager living only a short distance from Toronto. The Rosetown factory contains only one unit of machinery which is made up of twelve individual machines, all essential to the process of separating the flax fibre from the straw. It takes seventy horse-power to operate the twelve machines, and the energy is generated by electricity. The electric light plant and the flax factory in Rosetown are inter-dependent, complementary. The manufacturing establishment provides cheap fuel which creates power to drive the dynamos of the electric system, which in turn extends its current to drive the machinery of the flax factory.

The municipally owned electric light plant, and the privately owned flax factory, are situated side by side on the outskirts of the town, in small, low, unpretentious-looking frame buildings. But together they are the means of furnishing the streets of Rosetown with an array of lights which can hardly be equalled in any other Western town of the same size. And the rate to the consumer is naturally very low.

For the most profitable kind of manufacture, the raw material used by the Rosetown flax factory is distinctly inferior, but even with its limitations, a very encouraging trade has been developed in some of the less valuable finished products. Flax fibre perfectly separated from the flax straw is the most useful and precious fibre in the world. In Belgium, from fifty to sixty dollars per ton is paid for the best natural

flax fibre, and in those countries where sufficient hand labor is available, the farmers raise the flax for the fibre, and not for the seed as they do in Western Canada. The best fibre is used for making linen, and seed for making oil. In the West, where the flax is threshed for its seed, the straw that is left is so broken, mangled and tangled that is is absolutely unfit for textile manufacture. Vast markets are open, however, for flax fibre in its short and broken state. The finest papers are made from rag, and flax fibre is the finest rag. Mattresses are made of disintegrated jute, or rope, or corded cotton waste. Flax fibre is finer than any of these, having almost the life and resiliency of animal fibre, and being particularly fine for upholstering furniture or automobile or carriage seats. Animal fibre is used very often as binding material in plaster and gypsum manufactories. Flax fibre is just as strong and cohesive, and will not perish in water, or a dampness of any kind. Beaver board made with flax fibre and its own woody material cannot be excelled, and as an insulator and protector against heat and cold, in a more supple form, is extremely useful and valuable.

The old methods of separating the fibre from the straw are still to be found in certain odd corners of Ontario, where the small flax mills with their antiquated processes of "pit-retting," or "dew-rilling," are not yet extinct. But the new machine will separate the valuable fibre from the straw without having to resort to "retting," and without the great loss of time involved in the old-time methods. At the Rosetown factory, the machines extract about 25 per cent. of the fibre, consuming some nine tons of straw per day when the entire unit of machinery is in operation. A valuable offal in the form of a woody material is taken away from the machines on one side, while the fibre is taken and cleansed and refined on the other side. The offal becomes a valuable by-product, the woody and oily character of the material making it useful as fuel. It is used for fuel in its natural bulky state, and also in the form of briquettes. The electric light plant at Rosetown is run entirely by burning this flax wood.

The business of the Flax Decorticating Company of Rosetown is still small, but what there is of it is profitable. Mr. vanAllen, the manager of the company, told the writer that he was exporting most of his output, and making a profit on it, ranging from twenty to twenty-five dollars per ton. The usual complement of men attached to a unit of twelve machines numbers fifty to sixty, and the wages average from 30 to 40 cents per hour.

DEATH OF MR. DAVIDSON.

Frank Davidson, lumber king, and one of the most prominent residents of Nova Scotia, died on November 11th, after a stroke of paralysis

CANADIAN FLAX STRAW IN GERMANY.

By C. F. Just,

Canadian Trade Commissioner at Hamburg.

The question of the possibility of utilizing Western Canadian flax straw, *i.e.*, the straw of the flax plant which is now grown solely for the seed, for textile purposes, is one which has frequently been raised. One hears at intervals of the alleged success of special experiments and processes, but nothing so far in the way of a definitely practical and conclusive result appears to have been reached. For some years now the world's supply of raw flax for the linen industry have been notoriously inadequate, and in spite of a great increase in the price for which Russian flax, retted and scutched is to-day $170 (£35) per ton, as against say $131 (£27) in 1905, production has remained more or less stationary. In a general sense the same remarks also apply to the supply and price of hemp and jute. Just now cheap Russian hemp fibre costs here $120 per thousand kilos (2,206 lbs.) free factory.

All the conditions, therefore, have been of a character to encourage the discovery of a satisfactory process for treating and utilizing the Western Canadian flax straw for textile purposes.

Fibre from Manitoba Straw.

Upon being invited by a well known firm of brokers of raw materials for the textile industry in Bielefeld, the Belfast of Germany, to assist them in determining the value of Canadian flax straw, your Commissioner obtained from London several small bundles of the complete plant as harvested in Teulon, Manitoba, last fall (1912). This flax straw was subjected to the usual retting process under the supervision of the firm in question with the following results:

	Kos.
Weight of flax straw with roots and seed bolls.....	1.044
Weight of straw after removal of roots and seed bolls.	0.380
Amount of fibre after retting	0.065

A sample of this fibre is forwarded herewith.

The fibre was submitted to and examined by a practical local flax spinner, who stated that one would have to allow for a further loss of weight of between 50 per cent. and 60 per cent. in putting the retted fibre through a carding machine in order to remove the remaining impurities, and to thoroughly clean the fibre.

Unsuitable for Textile Purposes.

The question of the value of fibre so cleaned to the spinner was then raised, the frank reply given being that the fibre was so poor and brittle that it would not stand the spinning

*Note.—The above article by Mr. Just was published in a recent report of the Trade and Commerce Department, Ottawa. The preceding article by Mr. Lambert describes the beginning of flax manufacturing in Canada.



Rosetown, Saskatchewan, Centre of Flax Growing District

process, and that it could not even be used for heavy tow numbers 6 or 8 lea, and, further, that in the spinners' view the fibre would be of no use to a hemp spinner.



Flax-workers' Homes in Saskatchewan

It may be stated here that a similar sample of fibre won from Argentine flax straw was recently submitted to this flax spinner with identical results. It would seem, therefore, to be established that if flax be grown for seed and not for fibre, the whole strength of the plant goes into the seed at the cost of the fibre, and that it is impossible to alter the poor quality of such fibre by any method of treatment.

Suggested Uses.

On the other hand, it has been suggested to your Commissioner that while valueless for spinning purposes, this retted fibre, uncarded, might well find a use in the upholstery trade for stuffing and padding purposes, and that it would be worth say M.100 ($25) per ton, c.i.f., Hamburg.

A conservative estimate of the cost of retting and scutching this flax straw is given at marks 40 ($9.52) per metric ton (2,206 lbs.). The manipulation of the straw is comparatively a simple one as carried out by my informants. The straw is placed in a specially constructed cement tank, and there subjected to constantly flowing warm water. It is important, of course, that the water employed be absolutely "soft." Five tons of straw are treated at one time, and the retting process is completed in two days.

If to this cost of retting be added the freight charges from Winnipeg to Hamburg, or other continental port, it becomes clear that export to Europe is out of the question. The possibilities, however, of the market in Eastern Canada and in the United States may be worth investigating.

There remains the question of the suitability of the flax straw, and of the retted fibre for the paper-making industry; here the prospects would appear to be more hopeful, provided the material be worked up on the spot, thus avoiding freight charged and other handling expenses. The suitability of the flax straw itself, and of the refuse straw remaining after retting, for the manufacture of straw boards, etc., is obvious. It is believed also that the fibre would furnish a good paper-making stock. In this connection your Commissioner submitted the sample of retted fibre to an important firm of paper and pulp brokers in Hamburg, who were greatly interested. They have offered to have paper made from this material in their laboratory if a supply be sent to them, and to report fully on the results that are obtained.

THOS. J. REID DEAD.

Thos. J. Reid, sales manager of the Walpole Rubber Company, of Boston, died in Montreal in November as the result of a stroke of paralysis.

FEWER TRADE DISPUTES AND WORKING DAYS LOST.

The Department of Labor reports that the industrial situation from the standpoint of the number of trade disputes in existence, was better in October than at any time during the year. The loss of time to employees through trade disputes actually commenced during the month was small, and in all there were only eight disputes in existence, this number including those already in existence at the beginning of the month and those which commenced during October. On no occasion during the present year has the number been as small as this; the next best record being in September, when eleven disputes were reported. About 3,657 employees were directly and indirectly involved in the disputes of the month. About 70,000 working days were lost through strikes and lockouts during October as compared with 83,380 during September and 98,000 in October, 1912. As in the previous months the most important dispute was that of coal miners on Vancouver Island. It is difficult to estimate the loss of time through this dispute, as it is probable that the strikers obtain work from time to time in other localities and that other men are taken on by the operators concerned. An estimate would show about 2,000 men out of work directly as a result of this dispute during October.

THE SMALL LOW PRICED CAR.

The development of the miniature motor car proceeds at an astonishing pace. Every week fresh details are received of further increases to the already large output promised for 1914, until it seems probable that 30,000 small cars, at prices from £125 to £225 will be manufactured next year. Prices, too, are not decreasing, but are being slightly advanced. It is not easy to see where the market lies for this big output, but for a certain proportion it exists right enough. Part of the surplus supply no doubt will be absorbed by the present demand among motorists for smaller, lighter and more economical cars. No doubt this great array of British miniature cars will act as a severe check upon imported machines, particularly the cheap American type.—*E. D. Arnaud, Canadian Trade Commissioner at Bristol, England.*



The Fly:—"See What I Am Doing!"
American Industries' view of the boast of the American Federation of Labor that all industrial progress is due to the efforts of the Unions.

IMPROPER PACKING OF GOODS COSTS $70,000,000 ANNUALLY.

Elliott Flower, one of the foremost writers on commercial and financial subjects, published a most interesting article in a recent issue of the Chicago *Record-Herald* on the subject of faulty packing of merchandise. He said:

Who gets the money?

Why, quite a bit of it—say $30,000,000 a year—is lost through improper packing, and the consumer pays the bill. He may think he doesn't, but he does; he always pays the bill. The railroads pay a large part of this bill first, but the consumer pays it in the end.

The great trouble with the consumer is that he does not think he is interested in many things which really vitally affect him.

"Oh, the railroads!" he says. "They're stuck for thirty millions a year, are they? Well, they can stand it. Let 'em pay!"

But the railroads are asking for about five per cent. increase in freight rates to meet this bill, and the consumer pays the freight rates in the price of his goods.

The railroads are not asking this increase for this specific purpose, but they have petitioned the Interstate Commerce Commission for the right to increase their rates, and this loss is surely in part responsible for the need of that increase.

So the consumer pays. You never can get away from that fact. He thinks he isn't interested in how goods are packed and shipped, or in the slipshod methods of the farmer, but he pays the bill.

In this case the bill is considerably more than $30,000,000. It is estimated at about $70,000,000, but this includes the cost of defending suits and investigating claims. The actual losses paid are estimated at about $35,000,000. Some of these losses are due to wrecks, but it is charged that about $30,000,000 is due to faulty packing and is entirely avoidable.

Our consular reports have clearly indicated that this faulty packing has materially affected our foreign trade. All else being equal, foreign merchants will take English and German goods in preference to American, because the English and German goods will arrive in good order and there is no telling how the American goods will arrive.

But this bad packing and boxing is not confined to our exportations, it seems; there is the same trouble in this country, and the losses because of it run up to the enormous total given.

The blame, it is charged, lies largely with the railroads. So long as they will accept improperly boxed goods and pay the losses upon them the shippers will ship in the cheapest packages possible. In fact, as a matter of competition with other shippers, many of them have to do it. And the consumer pays the bills.—*Trade and Transportation.*

UNIVERSAL EXHIBITION, NOTTINGHAM.

A Universal Exhibition will be held at Nottingham from May to October, 1914. This Exhibition has the support and approval of the Nottingham Chamber of Commerce, and is also supported by the British War Office.

The promoters estimate an expenditure of $750,000.00 before the Exhibition opens.

FROM NORWAY TO THOROLD.

The steamship Glenfoyle, which came direct from Dramar, Norway, is now unloading cargo of sulphite pulp at the Ontario Paper Mill dock on the Welland Canal, at Thorold.

This is the first cargo of merchandise from far away Norway to be unloaded at any point along the Welland Canal.

COMPARATIVE FIRE LOSSES OF DIFFERENT COUNTRIES IN 1912.

(Cities over 20,000 population.)

	No. of cities reporting loss.	Population.	Per capita loss.
Canada	5	957,372	$2.88
United States	300	32,326,633	2.55
England	12	7,164,849	0.54
France	6	4,425,696	0.84
Germany	9	2,659,575	0.20
Ireland	2	699,802	0.57
Scotland	2	485,091	0.49
Italy	3	282,082	0.90
Russia	2	3,485,583	0.84
Austria	4	2,658,978	0.30

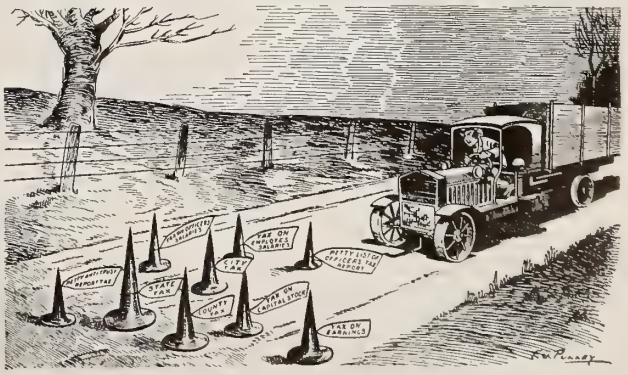
The above table shows that Canada's fire loss per capita is higher than in any other country from which records are available. The United States is not a bad second. The North American continent, as a whole, has an unenviable pre-eminence over Europe in this respect. Even Italy, which has the greatest loss of any of the Old World countries, has less than one-third of Canada's rate to her debit.

Unless there is loss of life, our Canadian public regards destruction by fire with altogether too much complacency. We are apt, unthinkingly, to assume that the loss is made good by the insurance companies, and to give the matter little thought unless it concerns us directly. A little reflection will show that, in the last analysis, the cost of insurance is borne by the general public. Numerous fires mean high insurance rates, and these in turn mean higher cost of production, which is paid for by the consumer in the form of higher prices for goods. In addition to this, we must remember that fires in mills, factories, warehouses and offices, usually throw a number of people out of work, and disturb business in various ways, *e.g.*, in the cancelling of many orders or protracted delay in their fulfillment.

We cannot, in justice, blame our Fire Departments for the present unfortunate state of affairs, nor can we say, usually, that they are ill-equipped. The causes of many fires are often obscure but, in many cases, somebody's carelessness is at fault. While the prevalence of wooden buildings is a contributory factor, many of our larger structures are not built with a due regard for safety. The enforcement of good building regulations is a measure of prevention that should not be overlooked in dealing with this problem. We must endeavour to strike at the root of the evil.—*Conservation.*

A PUZZLE.

"How can you expect," asks Colonel Wilbur Wakeman, "to receive wages at home for work done abroad?" Moreover, how can you expect to receive wages for work not done at home and not done abroad? *How?*



Rough Roads for the Manufacturer

NEWS AND VIEWS OF THE ASSOCIATION

Items of General Interest to Association Members Passed in Review by the Secretary

AFTER many years, the Canadian Manufacturers Association is again playing the host at meetings of its own Council. The completion of office alterations has provided it with two Board rooms, convertible into one, where fifty people can be comfortably seated, and where business can be transacted with every facility and convenience, with immediate access to Association records.

Members who attended the November meeting were delighted with the change. They will be still better pleased when they see the new furnishings, which should all be in place for the December meeting.

A Strong Committee.

Keen interest was taken in the appointment of an Executive Committee for 1913-14. Not that there was a lengthy ballot, for most of the appointments went by acclamation, but careful consideration was given to see, first, that the honor was conferred upon men who could and would attend, and second, that the selection should be representative as far as possible of trades and localities.

Under the new By-laws this Committee will have full charge of all the business affairs of the Association. It is a Committee *of* the Council, responsible only *to* the Council, and it is a matter of general satisfaction that its personnel gives promise of effective administration. The elective members are: (1) For a three year term, Col. Chas. A. Smart, Montreal, and Col. W. M. Gartshore, London; (2) For a two year term, Henry Bertram, Dundas, and J. S. McKinnon, Toronto; (3) For a one year term, G. Y. Chown, Kingston, and A. R. Clarke, Toronto. The *ex-officio* members are C. B. Gordon Montreal; J H. Sherrard, Montreal; E. G. Henderson, Windsor; R. S. Gourlay, Toronto, and Geo. Booth, Toronto.

Supreme Court Judgment in re Constitutionality of Provincial Licensing Acts.

The judges of the Supreme Court have handed down their judgments in the stated case referred to them by the Dominion Government covering the disputed questions with respect to the jurisdiction of the provinces and the Dominion over the incorporation and licensing of companies. The stated case embraced a variety of questions, the two chief questions being: *First*, whether a company incorporated under a provincial charter was competent to carry on business outside the incorporating province; and, *Second*, whether a company incorporated under a Dominion charter could be required to become licensed or registered under the provincial Licensing Acts before carrying on business in the different provinces.

As to the first question it is difficult to summarise the opinions of the judges in general terms. Their effect may best be illustrated by a company incorporated under a provincial charter to manufacture, buy and sell agricultural implements. Three of the six judges hold in effect that such a company could not carry on its manufacturing outside the incorporating province, though it might purchase its machinery and materials, and perhaps sell its products, outside the province.

As to the second question the majority of the judges hold that Provincial Licensing Acts are valid if *bona fide* for the purpose of taxation. Only one judge goes the length of supporting specifically the Licensing Act of the Province of British Columbia.

John Deere Plow Cases.

The result in the Companies Reference has shown the difficulty of securing a decision, by this method, of the practical questions in which manufacturers are interested. The result has merely revealed the precarious position in which the majority of incorporated companies stand. There is the gravest doubt if, and how far, provincial companies can do business outside the incorporating province and entire uncertainty as to whether ordinary commercial companies should be incorporated by the provinces or by the Dominion, the most serious factor being the uncertainty as to being able to resort to the courts for the enforcement of the legal rights.

The appeal in the John Deere Plow cases which were brought before the courts at the instance of the Association has now been set down by the Privy Council for hearing. It was hoped that this appeal would be heard at the November sittings, but it was found impossible, owing to the intervention of the Dominion and some of the Western provinces, to bring on the hearing this fall, and it is probable that the appeal will have to stand over until next June. It is possible that the General Reference above mentioned may not be appealed, but that the Government may rely upon the appeal in the John Deere Plow cases for a decision on the questions raised in that case. In any event it is probable that the whole question of provincial licensing and registration will be fought out in connection with the John Deere plow cases.

New United States Tariff on Wheat Products.

Among the many problems arising out of the new United States Tariff affecting Canadian industries, perhaps the most important is the provision relative to wheat. By that provision wheat, wheat flour, semolina and other products of wheat not otherwise specially mentioned can only be admitted into the United States free of duty when imported from a country which does not impose any duty on wheat, wheat flour and semolina.

The Customs Tariff of Canada provides for a duty on all three. Wheat cannot be dealt with separately, for it is linked up with the other products mentioned, consequently it is but right that the views of Canadian millers should be ascertained before the country commits itself in any way. The Association is now conducting an extensive enquiry among the millers, a report of which will be submitted at the next meeting of the Council.

The Tariff on Building Stone.

After thorough investigation through its Tariff Committee, the Association has placed itself on record with the Minister of Finance as follows with reference to the stone industry:

"Whereas the quarrying and stone cutting industry of Canada is one which, in view of the country's extensive resources and its wide spread and rapid development, should occupy an important place in our industrial life and enjoy its fair share of prosperity, and,

"Whereas there is evidence to show that this industry is unduly depressed, many quarries being closed, and those in operation working only part time; and,

"Whereas this condition would seem to be the result of unfair competition from outside of Canada, due in part to the fact that dressed stone is carried under both United States and Canadian classifications at the same rate as undressed stone, and in part to the fact that the tariff on dressed stone is only five per cent. greater than the tariff on undressed stone; and,

"Whereas it is apparently beyond the power of the Board of Railway Commissioners to afford any relief;

"Be it resolved that the Executive Council of the Canadian Manufacturers Association hereby commends the need of the industry to the early consideration of the Government, coupled with a recommendation that the tariff on stone be revised in an effort to overcome the unequal conditions which now prevail."

Board of Customs Decisions.

Customs Rulings and Decisions of the Board of Customs have been reported as follows:

Tractor hitches and engine guides, declared to be dutiable under Tariff Item 447, in effect from December 5, 1912. Under Item 447 the General Tariff rate is 20% ad valorem, and the British Preferential rate is 15% ad valorem.

Metal adapted in form and composition for use as nickel anodes, per sample, declared to be dutiable under Item 358. Under Item 358 the British Preferential rate is 5% and the General Tariff rate 10%.

Basic Furnace Slags, ground, declared to be dutiable under Tariff Item 663, in effect from November 9, 1913. The General Tariff rate under this Tariff Item is 10%, and the British Preferential Tariff rate is 5% ad valorem.

Fire Brick: Declared that fire brick purchased before 13th May, 1913, and entered for duty prior to the 13th July, 1913, shall be dutiable under the regulations in force 12th May, 1913, per Bulletin 266.

Declared that suspensory bandages to be rated as such under Item 236 shall consist of a bag or sack attached to a strap or belt used to support the scrotum, in effect 14th October, 1913.

Declared that *Wyandotte Alkali Special, Tanners' Alkali* and *Wyandotte Concentrated Caustic Ash* are dutiable under Tariff Item 711, unenumerated.

Customs Rulings.

Arab Lace per sample, Item 526.

Rag Pulp, 25% General Tariff.

Impervite, a concrete waterproofing compound composed of lime, soap and gum, Item 711, 17½% General Tariff.

Basofor: Containing over 96% sulphate of barium, Item 240—free.

Aluminum Plates for auto fenders, Item 354, 25% General Tariff.

Iridium, native, Item 359—free.

Machines for cleaning raw fur, as taken from rabbit and hare skins, and machines for feeding such fur into the cleansers, when of a class or kind not made in Canada and imported by manufacturers of fibrous materials for use in their own factories in the manufacture of fibrous materials, Item 468—10%.

Lace Jabots per sample, Item 575, 35% General Tariff.

Aluminum Sheets or Plates (aluminum foil), as rolled in the rolling mill—free. Item 353.

Grinding Rolls (Card), of a class or kind not made in Canada for use on carding machines, Item 468, 10% ad valorem.

Castings in the rough for turbines ox. 453, French Treaty, 25%.

Cartage Service.

The railways have given notice that they will not under any circumstances continue the cartage service after January 1st next. Hope has not yet been abandoned that some satisfactory basis of settlement will be reached before then, but in order that shippers may be prepared for the change, if it does come, the railways have been asked to state just what service they will be prepared to give, and what will be expected of shippers and receivers of freight after January 1st in respect to the following:

1. The assistance (checkers, etc.) to be given those employed by shippers and receivers of freight when bringing their freight to and taking it away from the railways' sheds and cars.
2. The signing of bills of lading.
3. Notice of arrival and delivery of advice notes.
4. Collection of charges on incoming and outgoing freight.
5. Storage charges when they begin to accrue.

New Zealand Steamship Service.

Advice has been received from the Department of Trade and Commerce that a new contract has been entered into with the New Zealand Steamship Company for a continuance of the service for two years, on the basis of $140,000 per year of 12 sailings, the contract to date from the closing of navigation on the St. Lawrence this year.

Canada-West Indies Steamship Service.

Advice has also been received that an agreement has been entered into between the Government and the Royal Mail Steam Packet Company for a service between Canada and the British West Indies. The first vessel left St. John November 23rd. The Canadian ports of departure will be St. John, N.B., and Halifax, N.S. The contract calls for a sailing every fourteen days. It provides for connections at the Port of Trinidad with the contractors' steamers conducting the insular service from and to that port at the rates obtaining for the direct service. It further provides that the steamship company will issue through bills of lading from any Canadian point of shipment to any port in Central or South America which is a regular port of call for any of the steamships employed or controlled by the company and which make regular connections with the service covered by the agreement.

Advance in Freight Rates.

Towards the latter end of October interested railways filed with the Board of Railway Commissioners at Ottawa and the Interstate Commerce Commission at Washington tariffs effective November 15th advancing all class and commodity rates approximately 5 per cent. on traffic moving between points in Canada east of Port Arthur and points in the United States east of Chicago and north of the Ohio and Potomac rivers. The same advance was proposed on export and import traffic moving through eastern Atlantic ports, Canadian and United States. The United States railways in the territory mentioned filed tariffs on the same basis applying on domestic traffic.

The Interstate Commerce Commission of its own motion suspended the advance in all tariffs over which it had jurisdiction until March 12th next, and in consequence of this action Canadian railways withdrew their application, though presumably they will renew it later on.

The railways apparently desired to make the advance uniform regardless of the nature of the traffic so that there could be no complaint of discrimination. They made representations some time ago to the Interstate Commerce Commission that increased labor and other costs in recent years had forced them to this position.

No such representations, which the public is aware of, have been made by the Canadian railways to our Board. The advance in so far as we are concerned is confined to international and ocean borne traffic. No change has so far been suggested in regard to domestic traffic.

Technical Education.

It is to be regretted that the recommendations of the Royal Commission on Technical Education, relative to the question of Federal aid, were not discussed at the conference of Provincial Premiers. Not only was it confidently expected that they would be considered, in all seriousness, but hopes were held out that some united action might be taken in

regard thereto. A possible reason for the course pursued as well as for the failure of the Dominion Cabinet itself to define its policy, lies in the fact that the report was not really complete at the time, though the portion remaining to be finished was a relatively unimportant one. This deficiency has now been remedied, and the Association will press the Government for an early pronouncement.

Appreciation from Nova Scotia.

In acknowledging the cheque for $200, ordered by the Annual Meeting to be sent to the Director of Technical Education for Nova Scotia, to be used in the donation of prizes, Dr. F. H. Sexton writes the Association as follows:

"The manner in which the Manufacturers Association wishes these prizes awarded accords entirely with my own views on the subject, viz., to give prizes to the classes which are attended by industrial workers rather than by college students. These wishes will be carried out and a report will be submitted later to the Association of the manner in which the prizes are distributed. I wish to express my great gratitude to the Association for their continued appreciation of the importance of technical education."

Industrial Canada Prizes.

The following award of INDUSTRIAL CANADA prizes has been made in Dalhousie University (Halifax): First prize, $60, G. M. Lewis; subject, "The Lobster Industry of Nova Scotia." Second prize, $30, Miss Evelyn Mackenzie; subject, "Conservation of Forests, and Reforestation of Waste Lands in Relation to Agriculture."

That these prizes are being appreciated is becoming more apparent each year. Mr. Lewis, in a letter of acknowledgment, says: "It gives me as much pleasure to know that you have found any worth in my humble attempt as it does to receive any prize therefor. I cannot but praise the manner which you have chosen to secure information in regard to our natural resources, and which ought to be known by every Canadian from coast to coast."

New Members.

The following firms were accepted into membership:

Bridgetown, N.S.
- Annapolis Valley Cyder Co., Limited, Cyder.

Dundas, Ont.
- The Caldwell Feed Co., Limited, horse and cattle feeds.
- Alfred S. Parker, tubing.

Fredericton, N.B.
- James S. Neill & Sons, Limited, boot caulks.

Hebron, N.S.
- The H. H. Crosby Co., Limited, boots and shoes.

Montreal.
- American Can Company, Henry Ross (4th).
- Dominion Chain Co., Limited, chain.
- Hercules Garment Co., Limited, overalls, etc.
- Slater Shoe Co., Limited, H. F. Glass (2nd).

Ottawa.
- The Bishopric Wall Board Co., Ltd., wall board.

Preston, Ont.
- The Canadian Buffalo Sled Co., Ltd., woodenware.

St. Francois, Que.
- J. B. & A. Gaulin, threshing machines.

Sydney, N.S.
- The Cross Fertilizer Co., Ltd., fertilizers.

Three Rivers, Que.
- J. H. Dansereau, lumber.

Toronto.
- The Beverley Wood Specialty Co., D. J. McDougald (2nd).
- Channel Chemical Co., Limited, polishes.
- Cluff Manufacturing Co., Limited, plumbers' supplies.
- Coleman Fare Box Company, fare boxes.
- Dearborn Chemical Co. of Canada, Ltd., chemicals.
- Douglas Bros., Limited, T. H. Douglas (2nd).
- Kingsdale Planing Mill & Lumber Co., Ltd., lumber.
- L'Air Liquide Society, J. McMillan (2nd).
- The Mineral Springs, Limited, aerated beverages.
- Geo. Oakley & Son, Limited, cut stone.
- Pease Foundry Co., Limited, R. B. Mackinnon (2nd).
- Toronto Pad Co., Limited, mattresses.

Winnipeg, Man.
- The Carson Hygienic Dairy Co., Ltd., ice cream, butter.
- Ford Motor Co. of Canada, Ltd., G. A. Malcolmson (2nd).
- The Great West Lumber Company, flooring, lumber.
- E. H. Heath Co., Limited, publishers.
- The Imperial Varnish & Color Co., Ltd., Geo. F. Campbell (3rd).
- The Interior Construction Co., Ltd., flooring.
- Wallace Sandstone Quarries, Limited, stone and lime.
- J. R. Watkins Medical Company patent medicines.
- Winnipeg Saturday Post, Limited, publishers.
- Winnipeg Tent and Awning Company, tents, awnings.

Membership Campaign.

When money is tight and business none too good, it is hardly to be expected that the membership of the Association will do much climbing, yet the Committee in charge of that end of the work keep working away, evidently in the determination that there will be no decrease in any event. The Convention issue of INDUSTRIAL CANADA has been sent to 1,000 of the most likely looking prospects, together with a small booklet that ought to convince any ordinary manufacturer that it's a good business for him to support the Association. This same booklet, by the way, should be interesting to members as well, for it contains a write-up of the various kinds of service available. Any one who thinks he may be missing anything should write for a copy.

British Columbia Manufacturers Association.

An independent organization of manufacturers has been formed out at the Coast, known as the British Columbia Manufacturers Association. Newspaper reports of its formation alleged as the principal reason for its existence that local manufacturers received little or no benefit from membership in the Canadian Manufacturers Association, which was operated primarily for the benefit of Eastern manufacturers. A report from our Branch Secretary in Vancouver, however, is reassuring on this point, for he states that after conferring with officers of the new Association, he learns that their main objects are to encourage the sale of British Columbia made goods within the province, to encourage local industries in every legitimate way, and to advertise the advantages of the province as a field for the investment of capital in new industries. The Canadian Manufacturers Association wishes the new organization every success, and will always be glad to co-operate in matters of mutual concern.

1914 Convention.

Calgary, Winnipeg and Montreal were all in the field for next year's convention, but the choice of the Council fell on Montreal. The kindness which prompted the first two cities to honor the Association with their invitation was fully appreciated, and the thanks of the Council have been tendered them in fitting terms. The reason governing the selection is simply stated, and convincing in its reasonableness. Five-sixths of the membership of the Canadian Manufacturers Association is comprised in the Provinces of Ontario and Quebec. This big majority have a right to expect that the annual meeting shall usually be held in a place easily accessible to them. This year it was in Halifax and few could go. Next year they want it where they can attend. In 1915 perhaps it may go West, if the West still wants it.

Canadian Trade Index.

The new edition of the Canadian Trade Index was received from the printers about the 15th of November, and it

is being distributed to members as rapidly as circumstances will permit. The work of compilation proved much greateh than was anticipated. Nearly fifty per cent. more headings are included in the new directory than in the last, and the number of manufacturers listed has been greatly increased. As a buyers guide the book should prove of great value, while its contents of general commercial information should make it a welcome addition to any business library.

Sailors' Relief Fund.

A cheque for $1,000 has been sent to the Honorary Treasurer of the Fund being raised for the relief of those dependent upon the sailors who lost their lives in the storm on the Great Lakes last month. This amount was paid out of the balance left over from the Regina Relief Fund subscribed by the manufacturers in July, 1912.

Canadian Council of Agriculture.

The above organization, which embraces among its affiliated associations the Dominion Grange of Ontario, the Grain Growers' Associations of Manitoba and Saskatchewan, and the United Farmers of Alberta, has asked for a conference with members of the Canadian Manufacturers Association, which will in all probability take place in the Association offices, Toronto, on December 15th. Through their Secretary, Mr. E. J. Fream, of Calgary, the farmers have expressed a desire to reach if possible a satisfactory basis of agreement with the manufacturers regarding matters of mutual concern which are of vital interest to the well-being of the country. The Canadian Manufacturers Association is delighted to have an opportunity of meeting representative farmers, and hopes that the interchange of views will result in much lasting good.

LANCING THE MANUFACTURERS

Manufacturers are long-suffering in granting the advertising requests of labor journals and journals purporting to be representatives of labor. INDUSTRIAL CANADA wishes to give publicity to the methods used by a paper called *The Lance*, which is published in Toronto.

We believe that the following documents, received from *The Lance* by an Ontario manufacturer, and now in our possession, will explain this paper's methods better than we can.

This is the letter written on *The Lance's* stationery:

"THE LANCE.
"*A Paper for the People.*

"Toronto, 25th November, 1913.

"Gentlemen,—

"Owing to our representative not calling on you while on his trip through Western Ontario, we take the liberty of writing you, enclosing editorial and memo, which we are going to publish in our annual Christmas paper in reference to the ——— ——— ———, Limited.

"As you have in the past kindly helped us to the extent of 500 copies, we trust you will do the same again this year.

"Awaiting the favor of an early reply from you, we are, Yours very truly,

"THE LANCE."

This is the order form which was enclosed with the above letter:

"THE LANCE.

"*Leading Labor Weekly Publication of the Dominion of Canada.*

"*Annual Friendly and Christmas Number.*

.....1913.

"We hereby subscribe for 2,000 copies of your Annual Friendly and Christmas Number at seven cents per copy; one copy to be delivered to us; balance to be distributed to best advantage. To contain editorial.

"Name.....

"Address.....

Then follows the "editorial," which is, one must admit, a most "friendly" effusion:

——— ——— COMPANY, LIMITED.

"In pursuance of the movement recently started among conservative members of our class towards establishing a better feeling between capital and labor, and promoting the ideas of conciliation and arbitration, as against hasty strikes and labor disturbances, we desire to call special attention to a number of local enterprises which have always been looked upon as consistent friends of the working people.

"We wish to refer in particular to the ——— ——— ———, Limited, with factories at ———, ——— ———, etc., as being a firm of this character.

"Towards the cause of labor this Company has always manifested a most friendly interest, and the good results of this policy are shown by the esteem in which it is held by all classes. It is our pleasure to state that the many employees of this firm are treated with due consideration and receive good compensation; ability and faithful services are appreciated by the management, and as a consequence the superior officers are held in high esteem by those under them.

"The management of this Company comprises men of ability and integrity, who are among the leading citizens of Canada, and any movement having for its object the upbuilding of the country or the betterment of the conditions of our citizens always enjoys their hearty support and co-operation."

We were informed at the Labor Temple, Toronto, that *The Lance* is not an official organ of labor, that it is a private enterprise, and, consequently, has no authority to confer the seal of authorized approval on any company.

It can only give its own "friendly" verdict.

TRANSPORTATION

By J. E. WALSH

THE railways have given notice that the cartage service under their arrangement with the cartage companies will be discontinued on and after January 1st, 1914, and that after that date shippers and receivers will have to bring their freight to and take it away from the railways' terminals, employing such means for that purpose as are considered proper.

We have asked them to state what service they will be prepared to give and what they will expect from shippers and receivers in regard to handling of freight at their terminals, signing bills of lading, giving notice of arrival, collecting charges, etc. It is desirable that the obligations of all concerned should be clearly defined, and thus avoid as far as possible the confusion, congestion and loss which are bound to ensue.

Unless some satisfactory understanding is come to the Board of Railway Commissioners will be asked to outline the duties of the respective parties and determine the extent to which the railways should contribute towards the cost of the service to the public.

This advance notice is given so that those interested may prepare themselves for changed conditions.

The simultaneous advance of freight rates in the United States and Canada has been checked temporarily by the Interstate Commerce Commission. It will be remembered that the Canadian railways filed with the Board of Railway Commissioners, Ottawa, and Interstate Commerce Commission, Washington, tariffs effective November 15th advancing all class and commodity rates approximately 5 per cent. on traffic moving between points in Canada east of Port Arthur and points in the United States east of Chicago and north of the Ohio and Potomac Rivers. The same advance is proposed on export and import traffic moving through Eastern Atlantic ports, Canadian and United States. It affects all raw materials such as coal, iron, lumber, oil, etc., brought into Canada; also paper, wood-pulp and similar commodities as are exported to the United States and move under commodity tariffs. The advance on bituminous coal from the Niagara frontier averages from 5 to 15 cents per ton.

A similar advance has been filed by the United States railways with the Interstate Commerce Commission effective the same date, but it is expected that that body will suspend the tariffs and take immediate steps to determine their reasonableness. No action has so far been taken in that direction.

However, as the Interstate Commerce Commission has suspended the tariffs in the United States until March 12, 1914, the Canadian railways have voluntarily suspended theirs until the same date. The subject will be dealt with by the Interstate Commerce Commission under the heading of "Revenues of Rail Carriers in Official Classification Territory." So far as is known, the Canadian Board of Railway Commissioners has not determined what action it will take in the matter.

The Institute of London Underwriters has come to an important decision respecting the rates of insurance to be charged for the St. Lawrence trade.

Among the alterations to be submitted to the institute are, first, that vessels are to be allowed to trade to Halifax and St. John without any additional premium; second, that the period of navigation for the fixed additional premium may be extended to the 15th or to the end of October, and, third, that a smaller additional premium should be charged for cancelling Baltic and British North American warrantys.

With the ultimate view of the stimulation of industrial activity, the development of the tourist travel on a largely increased scale, and the general exploiting of the Maritime Provinces and Quebec, the Canadian Government Railways are making active plans for the year 1914.

A thorough and systematic canvass will be made of the territory by a representative of the Traffic Department in order to obtain such details as will assist the railways in properly advertising the natural resources and attractions of the territory.

The excellent record of the French railways as a whole is due entirely to the exceptional safety of the private railways; for the State railways of France are the most unsafe lines in any leading country in the world. The French private railways have a mileage of 19,610 miles; the French State railways have a mileage of only 5,546 miles. Nevertheless, in the year ended June 30, 1910, while the private railways killed only 5 passengers in train accidents, the State railways killed 66. For every 10,000,000,000 passengers carried one mile the private railways killed 6, while for every 10,000,000,000 passengers carried one mile the State railways killed 315, or 53 times as many. Obviously, the accident record of the French railways is an argument against, not for, state ownership! For every 10,000,000,000 passengers carried one mile the railways of the United States in the year ended June 30, 1911, killed only 107 in train accidents, so that their record in this respect was only one-third as bad as that of the French State railways.—*Trade and Transportation.*

Packing goods for transportation to the buyer is of as great importance as the production of them, for what are they worth at the place of production if they cannot be shipped to the consumption point and be received there in perfect condition? Besides, the cost of packing and transportation are items of expense which do not enter into the intrinsic value of the goods, and, therefore, reduction in these two items of cost will not in the least detract from their selling value. Study your classification before you make your shipment.

Don't box your goods, if they travel more cheaply in barrels or kegs. Don't ship your stove grates or implement parts loose at first class when you can wire even two pieces together and make a bundle which will take third class. Shippers should consider thoroughly in preparing freight for shipment. It is a small matter to put a wooden top in a barrel instead of covering it with some kind of cloth, but the difference in freight charges may prove to be considerable.

In general, goods which can be packed in boxes or barrels take the same rate in either way. If in crates they are one class higher than if in boxes or barrels; if in sacks or bundles, they are still another class higher. By bags is understood those made of other material than paper, which usually take one class still higher. Glass bottles when in barrels with wooden tops take third class; with gunny sack tops, they take second, while with cleated tops or entirely without tops, first class.—*Trade and Transportation.*

INSVRANCE

By E. P. HEATON

FIRE which broke out recently in the engine-room at the H. J. Heinz Company's factory in Leamington, Ont., was discovered before it had made much progress. Fire extinguishers, with which the factory is thoroughly equipped, were put into operation, and the fire was checked without calling the town fire department. This proves the value of extinguishers.

Twenty dealers handling gasoline in various parts of the state (Illinois) were arrested last week by deputy state fire marshals for violation of the law requiring that all receptacles for gasoline used in the retail trade shall be painted red and properly marked with the word, "Gasoline." In each instance the accused pleaded guilty and was fined a minimum amount of $10 and costs. This crusade is along the line of an endeavor to decrease the number of serious accidents resulting from mistaking gasoline for kerosene on the part of the consumers.

No damage from forest fires has been reported this season in the coast district of British Columbia. Only three fires occurred in the entire district patrolled by the fleet of wardens' launches, and these were put out before they had spread far. The good record this year is attributed largely to the efficient organization of fire wardens by whom trails have been cut and lookout stations and telephone systems maintained. In previous years the Province has been obliged to pay heavy bills for the extra labor required in emergencies. The "fighting force" fund, as it is called, exceeds $20,000 for the Selmo fire in 1910, it is reported, while the damage done by this fire amounted to $750,000. This year the fighting force fund has been drawn on for less than $200.—*Engineering Record.*

A New York man who was convicted of having filed a false proof of loss in connection with a fire which occurred in the basement of the concern on April 12 last, has been sentenced by Justice Gavegan, in the Criminal Branch of the Supreme Court, to serve not less than two nor more than four years in Sing Sing prison.

All underwriters and all interested in fire prevention are of the opinion that smoking is a prolific cause of fires, and the practice, with its attendant evils, should be discontinued.

One of our members applied to their insurance brokers for a number of "No Smoking" signs for display purposes, but the reply received was considered an insurance joke, almost worthy of a place in INDUSTRIAL CANADA! Here it is, therefore:

"Referring to the conversation you had with the writer regarding 'No Smoking' signs from the Underwriters' Association, we beg to say that the writer saw Mr. Ross, and was informed that the Association never has issued any such signs. The Underwriters' Association at Toronto also does not issue the signs. We understand that the Association in Winnipeg has its own printing plant, and, therefore, can send these signs out. Apart from this, the matter of getting out 'No Smoking' signs would only be the start of considerable other stationery, and would run up an expense which it is desirable to avoid, as the different companies are now complaining of the high expenses of the Association because of the numerous inspectors and the large and expensive country to cover. We, therefore, suggest that you have 'Positively No Smoking Allowed' signs made out by your own printers."

Surely the Underwriters' Associations are interested in removing what is admittedly a prolific cause of fires, and even although it costs a few dollars to print and distribute efficacious signs of warning, it is a penny wise pound foolish policy to refrain from doing so.

The "No Smoking" sign in factories and shops should, however, be conspicuously hung by city or provincial ordinance. The fire marshal's office should enforce it.

"Provisions in an insurance policy are always construed so as to prevent a forfeiture, if the language will reasonably permit such a construction," is established according to the remittiturs and opinions of the California Supreme Court just received affirming the judgment of Judge Austin in the four W. J. O'Neill Insurance cases. They involved the policy conditions of suspension and non-liability for loss when more than a quart of gasoline is used or kept on the insured premises, which in the case at bar were used in part as an auto repair shop.

The decision as involving this point is the first of the California court on appeal, and establishes the law as regards insurance policies containing this general condition. Three definite rulings are laid down as the law under policies covering the use and keeping of gasoline, and in view of the popularity of the automobile and the general use and keeping of gasoline in garages and auto shops are of popular interest. The principles laid down are these:

"Where a policy of insurance against loss by fire allows the insured premises to be used as an auto repair shop a printed condition in the policy that the company shall not be liable for loss occurring while more than one quart of gasoline is used or kept on the premises does not exempt the company from liability for loss from fire occurring from the ignition of several gallons of gasoline emptied from the leaking gasoline reservoir of an automobile brought into the shop for the purpose of having the leak repaired, as it is to be presumed that the company undertook to insure against all ordinary risks incident to the conduct of such a business.

"Under a clause in the policy forbidding the admission into the insured building of any gasoline other than that contained in the tanks of machines 'permanently or temporarily stabled therein,' the policy is not suspended by the presence on the premises at the time of the fire of several other automobiles, each containing more than one quart of gasoline in its reservoir.

"Under the clause in the policy suspending the insurance while more than one quart of gasoline was kept on the premises, the fact that at divers times before the fire considerable quantities of gasoline had been kept therein in addition to that in tanks of machines, and that kept for use in repair work does not void the policy where no such excess was on hand at the time of the fire."

The sixth conviction in the "arson ring" prosecution was obtained in Chicago during November when Isaac La Bow was found guilty of hiring John Danies, a confessed incendiary, to set fire to La Bow's furniture store.

TARIFF

By J. R. K. BRISTOL

THE following is an extract from the New Zealand *Gazette* of July 3, 1913:

Certificate under Section 6 of the "Customs Duties Act, 1908." In the exercise of the powers conferred upon me by the Customs Duties Act, 1908, and of all other powers and authorities enabling me in this behalf, I, Francis Marion Bates Fisher, Minister of Customs, do hereby direct that the forms of certificate numbered one and two prescribed by Minister's Order, No. 1001, under Section 6 of the Customs Duties Act, 1908, on the 19th day of June, 1912, and published in the New Zealand *Gazette*, of the 27th June, 1912, shall be the same and are hereby modified (for the purpose of bringing the same into accord with the certificates required by the Commonwealth of Australia), by the omission of the following words from the paragraph numbered four in each of the said certificates, viz.: "Costs incurred in the mere packing of foreign-made goods in (*e.g.*, cartons or other containers)";

Provided that certificates in the forms prescribed under the aforesaid Minister's Order shall, if presented, be accepted.

Given under my hand at Wellington, this 2nd day of July, 1913. F. M. B. FISHER,
Minister of Customs.

(Minister's Order, No. 1043.)

It will be observed that the paragraph "Costs incurred in the mere packing of foreign-made goods in cartons or other containers" may now be omitted. By this change the cost of container and the labor of packing foreign-made articles therein, in any British possession, may in future be included in the cost of production of such articles in their application to Paragraph 3, Clause B, as prescribed in the Certificate of Origin.

The law which prohibits the importation of canned fish into France unless the cans are stamped on the top or bottom with the name of the country of origin in letters of four millimeters was published in the *Journal Officiel*, June 29, 1913, and will come into force one year from promulgation, viz., June 28th, 1914.

The French Minister of Agriculture states that tins of salmon not stamped with the name of the country of origin and in stock in France after the 28th June, 1914, can be sold without incurring any penalty. It is of course understood that the purchaser must not be misled as to the origin of the goods, and no unstamped tins of salmon will be admitted by the French Customs after the above mentioned date—the toleration only extending to salmon already in stock on that date.

The French Consul General at Montreal states that the Minister of Finance at Paris has withdrawn the privilege which consisted in the application of the minimum tariff to scheduled Canadian goods sent via New York to France on the production of a Certificate of Origin. In future importers of Canadian goods to France by this route will have to produce, in addition to the usual Certificate of Origin, a written attestation by the French Consul in New York to the effect that the goods have not undergone any manipulation, change of packing, or modification of mark in New York.

The *Journal Officiel* of July 31st publishes a new scale of French Consular fees. Under this scale Certificates of Origin and certified invoices for shipments of less value than 100 francs can be vised by French Consuls without charge, if reciprocal treatment exists in the country of origin. This concession will extend to Canada, as the exporter in France is not subject to any fee on behalf of Canada for proof of origin on his shipments to this country.

Members are reminded that the Association's Tariff Department is at the call of each member in respect to any Customs Tariff question, foreign or domestic. The Association's Tariff Office is intended to be availed of by its members in any tariff matter on which special information may be desired.

In connection with Preferential tariffs accorded by other countries to articles of Canadian production, many manufacturers may not know that such exports from Canada are facilitated by a Customs regulation under which drawback is obtainable of 99 per cent. of the duty paid on imported materials used in Canada in the manufacture of such articles for export. Of the existence of this drawback arrangement too few manufacturers seem to be aware. It is probable that many manufacturers might reduce their overhead through spreading these costs over a larger output, and increase their profits, by taking advantage of the drawback provisions.

Another provision in the new United States tariff which is very interesting through the facility it affords United States manufacturers to obtain business from abroad, is subsection 4, paragraph "J." This provision exempts from duty machinery or other articles imported to be altered or repaired; it also exempts moulders' patterns from duty when for use in the manufacture of castings intended to be and actually exported within six months from the date of importation thereof; likewise exemption from duty is provided for models of women's wearing apparel when imported by manufacturers for use as models in their own establishments and not for sale; and such exemption also extends to articles intended solely for experimental purposes. In this section it is provided, however, that no article shall be entitled to such free entry that is intended for sale or which is imported for sale on approval.

Total Exports and Imports of the Dominion of Canada for the six months ending September 30, 1913

Exports.	1911		1912		1913	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
	$	$	$	$	$	$
The Mine....	19,322,817	108,694	27,073,380	59,736	28,273,485	464,865
The Fisheries	6,736,296	67,497	6,370,988	35,100	8,416,404	44,188
The Forest...	22,807,072	158,623	23,810,713	337,765	24,582,639	381,797
Animals and their Produce ...	27,068,461	531,868	24,314,427	424,074	24,441,739	626,434
Agriculture..	37,415,659	5,831,719	61,401,528	3,671,678	76,628,452	5,395,373
Manufactures	16,205,034	3,139,899	19,416,556	4,083,494	26,004,838	6,879,581
Miscellaneous	51,643	460,614	39,792	1,519,504	57,688	2,242,688
Total ..	$129,606,982	10,298,914	$162,427,384	10,131,351	$188,405,245	16,034,926

Imports.	1911	1912	1913
Dutiable Goods.....	$156,802,056	$214,996,059	$227,058,618
Free Goods.....	89,908,631	110,193,287	111,104,854
Total imports.....	$246,710,687	$325,189,346	$338,163,472
Duty collected.....	40,822,377	55,969,816	58,563,326

Exports and imports of coin and bullion not included in above.

PARLIAMENTARY

By F. W. WEGENAST

THE decision of the Supreme Court of Canada in the Companies Reference has increased, if that were possible, the complications surrounding the subject of company incorporation and registration. It was not to be expected that a unanimous decision would be arrived at upon any one of the various points in dispute. But it was hoped—against hope perhaps—that some definite result in the way of a majority decision could have been attained. This hope is entirely dispelled so far as the Supreme Court is concerned. Those who advocate the abolition of appeals to the Privy Council in England may well reflect that if the Supreme Court had been the final tribunal in the Companies Reference the law governing a subject so vitally important as that of company incorporation and control would be left in a condition of almost inextricable confusion. The saving feature of the situation is the inevitableness of the appeal to the Privy Council; and the law which the lawyer and the business man have to observe, and, so far as may be, follow, is rather a speculation as to what the Privy Council will ultimately decide. Some of the judgments of their Lordships have indeed, if one may say so with respect, the appearance of arguments endeavoring to advocate particular views before the Privy Council.

The two principal questions involved in the reference may be briefly stated thus:

First, whether a company incorporated under a Provincial charter was competent to carry on business outside the incorporating Province, and

Second, whether a company incorporated under a Dominion charter could be required to become licensed or registered under Provincial licensing Acts before carrying on business in the different Provinces.

Of these two the second is the more important question in its practical bearing, because obviously if a Dominion charter were held to be good in all Provinces without the necessity of re-incorporation, every commercial company of more than Provincial scope would take out a Dominion charter. One of the peculiarities of the course of the argument on the case was the fact that the bulk of attention was given to the first point, the second being allowed, except in so far as dealt with on behalf of the Canadian Manufacturers Association, to go by default on both sides. In the judgments, however, a great deal more attention is given to this phase, as doubtless will be the case before the Privy Council.

It is impossible to give an accurate general summary of the collective effect of the judgments. No two Judges deal with the question on the same basis, and no two lawyers reading the judgments would draw the same inference from any one of them. As to the first question, the effect of the judgments may perhaps be indicated by the illustration of a company incorporated under a Provincial charter to manufacture, buy and sell agricultural implements. The judgments of three of the Judges appear to indicate that such company could not carry on its manufacturing outside the incorporating Province, though it might purchase its machinery and materials, and perhaps sell its products, outside the Province. The other three Judges appeared to hold in various degrees the view that such a company could carry on any part of its business in any other jurisdiction.

As to the second question the majority of the Judges hold that Provincial registration and licensing Acts are valid provided they are *bona fide* for the purpose of taxation. This vital proviso, however, has the effect of excusing their Lordships from answering the question which was put, and which referred specifically to the Acts of certain Provinces. Only one of the judges, Mr. Justice Duff, goes the full length of supporting the Provincial contention as embodied in the Act of the Province of British Columbia. He says: "Referring to the sole concrete point discussed before us in this connection, and touching the validity of the provisions of the British Columbia Act relating to the licensing of Extra-Provincial companies against the validity of such an exhaustive argument was presented. I think it was competent to the British Columbia Legislature to enact sections 139, 152, 167 and 168 of the British Columbia Companies Act (Chap. 39, R.S.B.C.); that these enactments became operative with respect to companies incorporated and possessing powers conferred by the Dominion under the general authority above mentioned, and that in particular they become operative with respect to trading companies."

In a subsequent issue of supplementary reasons, of considerable bulk, Mr. Justice Duff argues that while it might not be competent for a Provincial Government to interfere with the Dominion laws governing the incorporation of a company, yet in respect to matters not relating to incorporation Provincial laws would be valid. To the question whether the British Columbia Act and the similar Acts of other Provinces really deal with incorporation, that is the corporate rights and powers of the company, the learned Judge assumes rather than gives a negative answer. This of course is the substantial issue. If a Dominion charter confers upon a company merely the fictitious attributes going to make up the legal entity called a corporation without giving to that entity any substantial rights or powers there is room for his Lordship's proposition. In the eyes of the practical business man, however, as in the interpretation of at least some lawyers, the effect of the Provincial Acts is to require the company to re-incorporate under a Provincial charter before its corporate existence and right to carry on business is recognized by the Province.

The other Judges are more guarded in their dealing with the question of Provincial registration of Dominion companies. Mr. Justice Idington rather elaborately argues that the proper remedy was a disallowance of the Provincial Acts, and that the time for disallowance having passed it is not for the Supreme Court to interfere.

Apart from the general reference, the question of the validity of the British Columbia Act as regards Dominion companies is raised in two concrete cases now before the Privy Council. There is therefore some hope that this vexed and complicated question is on the way to the beginning of a solution. The ultimate outcome will be awaited with the greatest interest by the commercial world.

SAFETY

Industrial Canada will be glad to receive items of news for this page from manufacturers who believe in "Safety First."

THE E. B. Eddy Company, Limited, Hull, takes many precautions to protect their employees from injury. All dangerous corners, sharp turns, etc., are so labelled in English and in French. Every employee is given plenty of room to move and to work. Waste material is at once collected and disposed of. In the match shop where chemicals, which are likely to injure the teeth of employees are kept, a dentistry is installed and every employee is required to have his or her teeth examined once a month, without cost to the employee.

The best and latest ventilation system is in each department, and all buildings are guarded against fire in every possible way. The Company have their own fire brigade and sprinkler systems; while throughout the works, fibre fire pails hang on hooks or stand in racks filled with water, so that a small blaze can be checked in the beginning. Also there is small hose attached to stand pipes so arranged as to cover each room. There are iron fire escapes from all second and third floors.

The building of the Company's new power house will eliminate much danger, doing away with many heavy belts, which were necessary when the machinery was driven by water power. Hereafter there will be an electric direct drive to the spot where the power is needed.

Another feature in connection with the building of the new pulp mill, is the practical elimination of death by electrocution. All high voltage wires are underground, only the low voltage wires being overhead, none of which are really dangerous.

The "safety first" movement embraces every branch of industry, and has, as its object, the reduction of the number of accidents among industrial workers. It may be said to consist of two parts. The first deals with the use of all kinds of safety appliances and the second, with the prevention of accidents by the education and co-operation of the employees. In Canada, the Provincial Factory Inspection Acts and Mine Regulation Acts, to a certain extent, deal with the former, but, as yet, little has been done by corporate enterprise with regard to the latter.

The "safety first" policy has been adopted by many of the Canadian and American railways and has been the means of effecting a marked diminution in the number of accidents. During eighteen months of its operation on the Chicago and Northwestern Railway there has been a reduction of 51½ per cent. of the injuries. In the case of the Steel Corporation a reduction of 43 per cent. in the annual loss from accidents has been effected. Financially this represents a saving of over $2,000,000 to the country, and, at the same time, a gain in working time to the company.

In Germany and in the United States, National Safety Bureaus and Museums have been established for giving information concerning safety appliances and for exhibiting the same.—*Conservation.*

The Canadian Copper Company has appointed a safety engineer for their mining and metallurgical plants.

The operation of machines for punching, stamping, and pressing metals is often attended by a great deal of personal danger. The operator becomes careless, or his attention is momentarily diverted, or he relies too implicitly upon the dexterity that comes with long experience and training; and the result is, that he loses a finger or a hand.

Presses and punches are of many different kinds, and the problem of safeguarding them is often extremely difficult. The best method of preventing accidents from the use of such machines consists in providing two operating handles, set some distance apart, and arranged so that the operator's hands must both be occupied, simultaneously, by the act of setting the machine in motion. Although this plan is the best of all, it cannot be applied with advantage, in every case; and when it is not practicable, other methods of safeguarding must be devised. For certain forms of machines, however, no guard yet devised is entirely satisfactory.

Adequate protection may sometimes be afforded by the use of metal finger guards.—*Travellers' Standard.*

Prevention is so much cheaper, and so much more satisfactory, and when we know that during the year 1912, in the United States, one trainman out of every one hundred and ninety-two were killed, and fifty-one thousand, two hundred and fifteen employees on duty were injured, and that twenty-eight millions of dollars were paid in claims for damages to the public, can we not see the pressing need of the *safety first* signal all along the line. May the million or more railroad women of the country see their duty in this matter, and though the results may not be exploited with shouts of victory, and a parading band, there will be heard from ocean to ocean, and from the Great Lakes to the Gulf, a song of hopefulness, which will make for happiness.—*Railway Record.*

The Canadian Manufacturers Association has carried out its plans for the speaking tour of Secretary Wentworth, of the National Fire Protection Association, under its auspices. Mr. Wentworth spoke last week at Montreal, Toronto, Ottawa and Hamilton, the meetings being held in co-operation with the Canadian Club and the boards of trade in those cities. The Canadian Pacific Railway improved the occasion of Secretary Wentworth's visit to Montreal by holding a fire protection day at the Angus shops in Montreal Monday, November 24, for which attractive invitations were issued by the company. There was a demonstration of monitor nozzle protection of the lumber yard at the shops, an exposition of the local methods used to prevent hydrants from freezing, a tour of the shops and attendance at the workingmen's luncheon in the dining hall of the shops maintained by the company. At the luncheon Secretary Wentworth spoke to the officers and men present. The total yard area of the Angus shops is 170 acres, upon which are 48 buildings, covering in all 34 acres. The number of employees is 7,500. An admirable system of fire prevention and protection is in operation. The invitation to the meeting on November 24, which was sent out to all the Montreal members of the National Fire Protection Association, stated that every day is fire prevention day at the Angus shops.

FORESTRY METHODS IN THE UNITED STATES*

By HENRY S. GRAVES

Forester in Charge of the Federal Forest Service
of the United States

THE part played by the nation in forestry must always be large. Here as in all other countries, the real development of forestry began when the Government took up its practice. Even to-day some persons would leave the forests entirely to private owners; others insist that the public phases of forestry are altogether a state function and federal activities in this field are unnecessary. Those who hold this view are usually either lukewarm concerning the need for forest conservation or opposed to restricting private activities.

National responsibility in forestry is perfectly clear-cut. There need be no confusion with an equally clear-cut responsibility of the states. And as to private forestry little of value has so far been done that has not been an outcome of public action through state or federal agencies, or both. It was the work of the Federal Government in placing its own forests under administration, its demonstration of fire protection and of conservative lumbering, its experimental and educational work, and its stimulus to our educational institutions to train and turn out a large body of foresters, which created the present wide interest in forestry and brought the efforts of other agencies into successful play.

Central Government Leads.

It required the nation itself to set in motion a national movement. The national work will always be the backbone of American forestry, not trenching on or interfering with state work or individual efforts, but serving as a demonstration of forest management on its own lands, a centre of leadership, co-operation and assistance to state and private work, a means to handle inter-state problems and co-ordinate the work of neighboring states, a guarantee that national needs which individual states can not meet will be provided for on a national scale.

Underlying the forestry problem are two fundamental considerations which should be emphasized and reiterated until thoroughly driven home. One is the public character of forestry. The public has a peculiar interest in the benefits of forestry. Both in the matter of a continued supply of forest products and in that of the conservation of water resources the public welfare is at stake. In each case purposes vital to the prosperity of the country can be accomplished only with the direct participation of the public. Private owners will secure results only on a limited scale in the long run on their own initiative. It takes too long, 50 to 200 years, to grow a crop of timber trees. Most private owners in face of fire risk, bad tax laws, and uncertain future markets will not make the necessary investments. Most lumbermen have bought their lands either to log or to speculate in the standing timber, not to grow trees for later generations. Nor will private owners make investments for general public benefits, as in watershed protection. If the public is to secure the benefits of forestry, it must take the measures necessary to guarantee these results, and it must bear the cost of what it receives.

Closely related to the fact that forestry is in many aspects a public problem is the second fundamental consideration I wish to emphasize. Forestry requires stability of administrative policy and such permanence of ownership as will ensure it. Herein lies the difficulty of private forestry on a large scale. Timberland owners are interested in the protection of their standing timber merely as insurance. Most of them are not interested in forest production, or in protecting cut-over lands if that involves substantial annual charges and is not necessary in order to protect their remaining standing timber. As yet the problem of cut-over private lands is unsolved. It is now devolving on the state to aid in their protection from fire in the interest of its own citizens. It will require the utmost resources of state and federal government together to handle this problem of getting reasonable protection of private forests and permanent production of timber on cut-over lands. Stability of policy and permanence of ownership are essential to any successful attack on this great conservation problem.

How Work is Done.

The national forests were set aside in the recognition that the bulk of these lands should be handled permanently under public protection and control. Provision was made for the acquisition of agricultural lands that might best be developed under private ownership, and such areas are now being classified and segregated from the forests very rapidly. The successful handling of the national forests requires annual expenditures in administration and protection and in development of roads, trails, telephones, buildings, and other improvements necessary for proper administration. We seek, therefore, as fast as possible to develop through classification the permanent boundaries of the forest land, and the management of it according to definite, far-sighted plans that will make for the best results of all expenditures in the long run. The result sought is an efficient business administration, a proper and adequate forestry practice, and development of the public property in the interests of the people who own it.

The national forests have now been under administration fifteen years, and under the Forest Service for eight years. The aim of the present administration is not to overturn, but to take every possible step to increase the efficiency of the organization, to adjust difficulties, and advance as far as possible the purposes for which the national forests were established. Secretary Houston recently said regarding the national forests:

"Establish permanent boundaries. Classify your lands; segregate the agricultural land and fix right limits for what is needed as protective and productive forests. Develop permanent policies based on full recognition of lasting public interests, and settled forestry practice fitted to the individual needs of each forest and locality. Study efficiency; make any changes necessary for this purpose, but make no changes that are not clearly called for in the public interest. Carry out your plans for the development and increasing use of the forests; but above all, make each forest work for community upbuilding and local as well as general welfare. We must always have in mind the men and women who are building up a new country and laying the foundations for prosperous, thriving commonwealths. We must try to study their needs and see where and how the forests can help them. But we must not cease to guard effectively against the evils of private privilege and monopolistic control of resources now the property of the public."

*Note.—The above article is taken from an address delivered by Mr. Graves at the Fifth National Conservation Congress, held in Washington, D.C., on November 19th, 1913. The United States wasted the greater part of her timber. Canada should profit by the example and preserve her forests before it is too late.

Protection from Fire.

The first important result of national forestry is a demonstration that the forests can be protected from fire. It was only a few years ago that many asserted this to be impossible. In the north-west the smoke season was as inevitable as the rainy season in winter, and this was not merely the result of clearing land, but from forest fires. It is only recently that our own forest officers have regarded lookout stations as feasible in certain places; for lookout stations are useless if smoke hides the view. This year in California there were over 1,100 fires on the timbered areas. These were kept down to an average of a little over 20 acres per fire. This was done by an effective fire organization and through the means of the trails, telephones and lookout system. In one storm lightning set over 20 fires on one forest. It takes swift and efficient work to handle such a situation. The results so far attained show that fires can be mastered. But it is necessary first to put the forest in a condition to enable the force to prevent fires, to detect those which start promptly, and to reach them quickly. The Forest Service is developing a system of lookout stations, fire lines, trails, and telephone lines that ultimately will make the forests secure. Already the force is able to save every year property valued at millions of dollars through the improvements so far built, although as yet only a beginning has been made. This work is carried on according to a definite plan, already projected in detail. Each year's work adds 2,500 miles of trails, 3,500 miles of telephones, and many lookouts and other improvements, progressing toward the final scheme. Until that is completed the forests can not be made entirely secure. With that development, the forest fires can be handled even in that exceptionally dry year that occasionally comes to every region.

Re-Stocks Burned Areas.

This protection not only saves the trees from destruction or injury, but already the effect is shown in the restocking of many areas where the old fires had prevented reproduction. Personally, I had hardly expected that there would be so quick a response. But the results are now apparent to even a casual observer. More specifically, while previously the forests were going backward because of fires, there is now an annual gain through growth. This increase translated into dollars and cents is much greater than the total cost of protection and all other expenses of the forests.

The necessity to take immediate steps to prevent the public forests from being destroyed by fire has placed a large emphasis on the protective feature of the administration. The wise use of the forest resources in the development of industries and in building up the country is essentially the real aim of maintaining the forests. Protection from destruction is a first essential; otherwise there would be no resources to use. But the purpose of the administration is not merely protective, but constructive. It is a favorite theme of the opponents of the national forest system to represent the forests as a separate federal domain, held for the use of future generations or for persons other than those now living in the region in which the forests are situated. Such statements are not only contrary to the spirit of the administration of the forests, but are disproved by the results already being secured. The aim is to make the forests count in the highest possible measure in the industrial upbuilding of the local communities, at the same time that they serve their broader public functions. In classifying the agricultural lands the aim is to get people to make permanent homes in the forests. Every consideration in the development of the states and in the upbuilding of the forests themselves makes for the encouragement of a greater local population. When there are people to create a demand for the timber and other resources, the real development of the forest becomes possible, and the forest begins to render its greatest service.

Selling Ripe Timber.

To encourage this development the Forest Service is promoting the sale of its ripe timber to build up local lumber industries of a permanent character; it is opening to entry land chiefly adapted to agriculture; it is further helping the settler by providing free such timber as he needs and protecting him in the use of the range needed for his stock; and in every way it undertakes to make the forests of public service and the country in the long run a better place for men and women to live in.

That a long step has already been taken toward this end is indicated by the very extraordinary change in sentiment in the West in the last few years. I have this year been able to analyze in detail the sentiment on the individual forests and now know just where opposition in each case exists and the extent to which the work of the federal government is valued. I have been astonished at the overwhelming preponderance of sentiment among the local communities in favor of the forest system. Frequently there are objections to certain regulations, or difficulty and friction in specific transactions. But every year these local troubles are being adjusted on the ground. There is still definite opposition to the forest system and the principles of our administration from certain groups, and certain interests. There are still certain water power interests which are carrying on a fight against the forest service. Many speculative interests oppose the forest system because the resources are not open to private acquisition under the general land laws. Certain men are opposed to the national forests because they cannot secure privileges that would be possible if the forests were unprotected. For example, in the south-west I find a well defined opposition among those who desire to run herds of goats on the forests without restriction. The desire to secure valuable timber for speculation is now, and always will be, a source of opposition to the public control of our forests.

Public Sentiment Favorable.

One proof of the present favorable sentiment is the fact that there are now relatively few breaches of the regulations. For example, in the Fourth Administrative District, which includes Utah, Nevada, northern Arizona, southern Idaho and south-western Wyoming, over 11,000 permits were issued last year, each involving some regulation. There were only 35 cases of trespass, about half of which were innocent, and the majority of the remainder not very important. Such a record would be utterly impossible if the people themselves were not right behind the regulations. In other words, it was public sentiment that made it possible to carry out the procedure with such success.

In the national forest districts is is now seen that the aim is to make the national forests serviceable at present as well as in the future, and people are co-operating more and more with the government to make the local administration successful.

In the East the work of the Federal Government is to-day far more effective than ever before. The purchase of lands on important watersheds in the White Mountains and southern Appalachians is steadily progressing. Already contracts for over 700,000 acres have been approved by the National Forest Reservation Commission. These lands are located on the most important watersheds and have been secured at prices representing their actual value, the average being $5.07 per acre. It has already been demonstrated that the building up of national forests by purchase and at reasonable prices is practicable.

THE LOBSTER INDUSTRY OF NOVA SCOTIA*

By G. M. LEWIS

THE lobster industry of Nova Scotia is the most valuable in the world. The total marketed value of all the lobsters taken from its waters for the year ending March 31st, 1912, reached the three-million-dollar mark, as compared with a corresponding value of five million for the whole Dominion.

New Brunswick produced $743,869 worth, Prince Edward Island $831,519 and Quebec $363,832 during the same year.

The lobstery is also the most valuable of the provincial fisheries, totalling one-third the entire fisheries value thereof, while in the Dominion its position is surpassed only by that of salmon. It is the main source of subsistence of some 20,000 fishermen, and as many as 14,000 persons, male and female, find employment in the canneries. The amount of capital invested in the industry is very large. Besides the value of boats and outfits which are used for general fishing purposes, as well as the lobstery, there were in 1911-12 some 756,067 traps, valued at $644,110, and 226 canneries valued at $236,945, in addition to the capital invested in cold storage plants, fish-houses and other smaller allied industries closely connected with the carrying on of the lobster industry.

The History of the Industry.

The industry was not of commercial importance until the introduction of canning from the Northern United States. The first cannery was probably established at Sambro near Halifax, in 1856, by a Boston firm, and from that time the industry has assumed an important place in the industrial life of Nova Scotia. Before that date, lobsters were very plentiful, and during many years following it was an ordinary occurrence to find lobsters along the beaches of Nova Scotia and New Brunswick at high water mark, blown upon the shore in wind rows by the gales. Their value was so little appreciated that they were used by the farmers for fertilizer, as oysters were once burned to obtain the small amount of lime their shell yielded.

It is through canning, therefore, that the lobster, made available to the world's markets, has become our most valuable food fish and is to-day a luxury to be enjoyed only by the few, a fact largely explained by the relation of supply and demand, which proportion is rendered both uncertain and unsteady because of the limited geographical range of the lobster, its extremely local habits and migrations, its perils when shelling, the dangers that threaten the eggs, and the delicate character of the young fry for many weeks while swimming on the surface of the sea before they become able to protect themselves from their enemies.

Available Supply of Lobsters.

The productive lobster fishing grounds of the world are very limited. The coasts of Norway and Sweden, of the British Isles, Belgium, Holland and Spain in the old world, do not produce enough to satisfy the European demand for lives-in-the-shell at prices from sixty to eighty cents per pound. In the new world, no lobsters are found north of the Straits of Belle Isle or south of Delaware breakwater. The Atlantic Coast of the United States grounds, once prolific, has been greatly depleted, so that what little fishing is done in those waters to-day is rendered profitable only because of the vastly increased values received for the catch. Of the catch of Maine, *The New York Fishing Gazette* (1897, page 8) said: "It is believed that there will be no lobsters packed on the coast of Maine during the coming season. The principal packing will be done in the British provinces. In the Dominion of Canada remains the last great lobster fishery of the world."

Since 1897, the Government of the State of Maine has spent large sums of money in restocking the coastal waters; and, though the statement as to the pack still holds good, a considerable quantity of live lobsters go yearly from that state to the Boston market. Of the Dominion, the production of lobsters is confined to the fishing grounds of the Maritime Provinces, along the Gulf in the Province of Quebec, a portion of the coast of Labrador, and the Magdalen Islands, which territory, together with a portion of the south and west coasts of Newfoundland, are the only sources from which lobsters are obtained in quantities that admit of canning.

The Methods of Capture.

Until a few years ago, the fishing was carried on from boats rowed by oars. To-day the fishing is done from boats propelled by the gasolene engine and manned by two or three men who usually own and operate in partnership. By the introduction of this new motive force, two or three times the number of traps can be daily visited and with far less exertion to the men. Traps are constructed of laths, nailed to reed ribs, are semi-cylindrical in shape, about four feet long, and two feet across the bottom. They are set in water from two to thirty fathoms deep and as far as six miles from shore. This increased distance from shore is made possible by the utilization of the gasolene engine as a propelling force. Along the south shore of Nova Scotia and the coast of Cape Breton, it is now the custom to set traps, each anchored separately, having its own buoy; whereas formerly it was the custom to fish double-headed traps each attached, at different spaces, to the one main rope, or, as it is called, trawl. This trawl method is still used along the Northumberland Strait coast, on the Prince Edward Island coast, and around the Magdalen Islands. The use of these two styles of traps is explained by the nature of the bottom, which in the trawl districts is both level and sandy, while along the Nova Scotia and Cape Breton shores it is very irregular and deep. Each fisherman sets about one hundred and fifty traps. The lobster crawls through a small entrance, and, dropping to the bottom, is unable to escape from the trap.

In the western part of the province, two sets of traps are in use. The inner, those of last year's construction, are set a mile or so along the shore for small lobsters, which are sold to the canneries; the outer, newly constructed traps, are set five or six miles from the shore. Practically all the large fish which are shipped alive to Boston are caught in these traps. the quantity of gear is constantly increasing and every improvement therein is immediately adopted. During the winter months, especially February and March, the boisterous weather often continuing several days at a stretch, completely demolishes many of the traps, inflicting heavy losses on the fishermen.

Naturally enough, the traps require to be baited. The best lobster bait consists of herring, squid, slackly salted. Many men catch and cure their own bait, during the close season for lobster fishing. It is worth one and a half or two dollars per barrel and a scarcity often exists, frequently brought about by a lack of cold storage facilities, a matter of general regret to the fishing industry.

*This Article is an Essay Which Won the First Industrial Canada Scholarship Awarded in Dalhousie University, Halifax, N. S.

Live Lobster Trade with the United States.

The lobster industry in Nova Scotia is composed of two parts, the live trade and the canned.

The live trade, that is the exportation of lobsters alive in the shell, first began about 1880 and was confined to the western counties of Shelburne, Yarmouth and Didby. Though the industry is most vigorously carried on in that part of the province to-day, the trade has gradually made its way eastward and now fish are shipped by rail from Cape Breton and the Northumberland Strait to Halifax and thence by steamer to Boston. During the months of April, May and June, as high as 600 crates are shipped by one steamer. Better transportation facilities would ensure this part of the province a much larger share in this lucrative part of the industry.

For commercial purposes, the live trade depends upon the nearness of the fishing grounds to the markets, for the powers of endurance of the lobster are such that it arrives in good condition only when carried short distances. A few "lives" have been sent in ice to Montreal and even as far west as Winnipeg, but Boston receives practically our whole supply, because of its nearness to our most productive fishing grounds, the easy access to its markets and the fact that prices for Canadian markets are controlled from that busy centre. West of Halifax, lobsters are packed in wooden cases, either as taken from the sea or covered with broken ice or rockweed, and sent by rail to Yarmouth. After inspection, to detect "berried" lobsters, they are placed aboard the steamer and in nineteen hours are landed on the Boston market. The size limit in this trade takes care of itself, because no lobsters under eight inches will be accepted in Boston. The largest quantities are shipped in April and May (over a thousand crates sometimes leaving Yarmouth by one steamer) and fewest in February and March, when stormy weather prevails, thus curtailing fishing operations.

This trade has assumed large proportions of late years, but it is not to be wondered at when prices oscillate between five and fifty dollars per crate of one hundred and forty pounds. Under the very best conditions, a man might easily stock a hundred dollars a week; yet that would be for a very short time. The fish are sold on commission in Boston and the checks, soon forwarded, circulate large amounts of money. The trade is worth just about one million dollars per year; a small catch resulting in corresponding high prices. There was an average annual catch of 128,293 cwt. from 1898-1911, valued at $942,883, and in 1911-12 the catch reached 98,659 cwt., valued at $1,153,002.

During the last few years a new phase of the live trade has sprung up in Western Nova Scotia. Lives are now transferred by smacks to the State of Maine. From there, some go to Boston and are impounded in cars until a demand arises; of the rest, they are placed in natural pounds until the summer months when they are fished out and shipped to hotels and restaurants in Boston and New York.

The Canning Phase of the Industry.

The canning part of the industry, by which means the product was placed on the market and the people educated to its value as a food, is far more important than, and returns double the value of, the live trade. The future of the industry will undoubtedly depend upon the methods and the regulations which are adopted in regard to the operation and control of the canneries. Their position in the Maritime Provinces, and especially in the Province of Nova Scotia, is unique, for the World's supply of canned lobster is packed in these districts and Newfoundland.

Canneries are operated all along the coast, but mostly east of Halifax and in Cape Breton and along the Northumberland shore. In these districts many boats and traps are owned by the packers, the men being hired as in any other wage-earning system. West of Halifax, however, the men usually own their entire outfits. Here, though in some instances both parts of the industry are carried on by the same persons, the canning industry is greatly interfered with by the live trade; prices for saleable lives often being considerably above what the canners reasonably can pay. Friction arises, and in this industry accusations naturally follow, the canners charging the live dealers with shipping "berried" lobsters, and the live dealers charging the canners with depletion of the industry through the canning of the small fish.

The lobsters are bought at the canneries by weight, and when not boiled immediately, are kept afloat in seawater in large crates or cars. They require twenty minutes boiling, after which the meat is removed from the shell, washed and packed in one-half, one-quarter and one-pound tins, neatly lined with white parchment paper. A small amount of pickle is poured over the meat, and the cans, sealed and packed in cases, labelled by the government, are ready for the markets of England, France, Germany and Italy. Great Britain and France consume about two-thirds of Nova Scotia's output. Germany gives a preference to Newfoundland lobsters.

The market is very active, due to the uncertainty of supply. An average price for a case of 48 pounds is about twenty dollars. The industry is worth just about two million dollars annually.

In 1911-12 Nova Scotia sold 96,498 cases, valued at $1,697,981
In 1911-12 New Brunswick sold 37,664 cases, valued at $602,624
In 1911-12 P. E. Island sold 51,693 cases, valued at $827,088
In 1911-12 Quebec sold 22,627 cases, valued at $362,032
In 1911-12 Newfoundland sold 25,000 cases, valued at $400,443

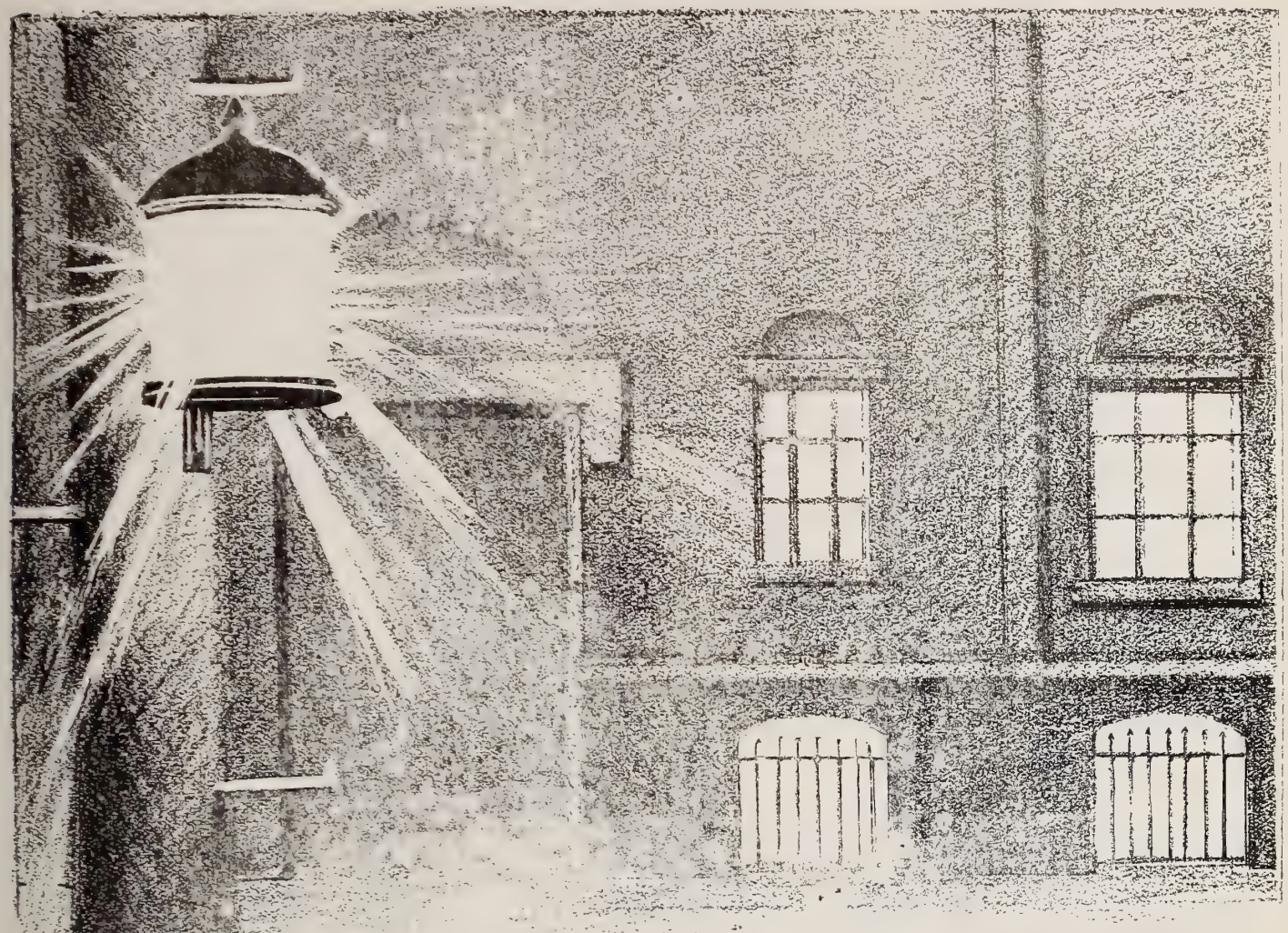
The canning industry is very speculative, the fishermen, using the condition of the live market as a lever, often raise the prices far above what the canners can safely and reasonably pay. Depressions sometimes follow with ill-feeling approaching hatred between the fishermen and the packers. The industry is made all the more precarious, too, because of the extreme competition between the packers for the fish from the boats. Of late years, science has done much to raise the standard of the pack. At one time the industry was threatened by the appearance in the canned article of a black sediment or smut as it was called. Though conditions have greatly improved, and are better to-day than ever, any method by which more sanitary and scientific packing could be brought about would, in many instances, return higher prices for the canned goods.

The Present State of the Industry.

It is next to impossible to work out an accurate estimation of the present state of the fishery. Little aid can be had from the available but unreliable statistics. And the problem becomes still more perplexing since the opinions of experts are much opposed. There are two general opinions held; one affirming that the fishery is in gross danger of utter depletion, the other denying such a danger. A review of opinions might not be out of place.

The commission of '98 held the general conclusion that the supply was approaching a critical condition. The minority held that the condition was not critical in general; that the supply had decreased in some places, but, with our natural conditions and reasonable regulations enforced, the industry was safe.

A special report of Superintendent of Fisheries, 1908-09, said—"It does not seem that the lobster fishery is anything like destroyed nor that its destruction is within measurable distance, and that a need for drastic measures has not been demonstrated." As far as evidence shows, and available figures prove, the position was upheld that the catch showed no material falling off from 1897 to 1908. But it must be borne in mind that the quantity of gear necessary to keep the catch



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up to the usual has been steadily increasing. In the year 1911-12, some 536 gasolene engines were installed in boats. This fact alone would permit the industry to be pursued with much more vigor.

In 1910, Commander Wakeham reported—" Those of us who are on the spot know that the catch is being maintained as the evidence shows, by increased effort and more destructive methods. What we have to fear and what thoughtful fishermen and canners are anxious about is a sudden collapse. The fishery, as it is practised, cannot stand the drain forever." This same position was taken before the Conservation Commission in 1912, and is adhered to by many intelligent fishermen who have given the subject much earnest thought and careful observation.

On the other hand, there are those brought up in all phases of the industry, both thoughtful fishermen and packers intimately connected with the industry, who hold that the strict protection of the berried fish, a close season gradually to be lengthened, strictly enforced, our coastal and climatic conditions, and from a scientific view, perhaps the most suggestive, the remarkable vitality of the industry, will best assure a future supply of lobsters.

These two opinions have run through all enquiries. Indeed, a concurrence of them is no more to be expected than that statistics will ever be available to prove mathematically the state of the fishery. But the evidence, taken as a whole, shows pretty clearly that something must be done to conserve the industry. The quantity of gear steadily increasing while the catch remains either stationary or slightly decreasing, is a straw which suggests the direction of the wind. The problem now is not whether restrictions are necessary, but which are the most useful.

The Future of the Industry.

The future of the industry is said by many to depend on the methods which are adopted with regard to the canneries. As far back as 1873 it was feared that the conservation of the lobster fishery meant the closing of the canneries. In the live trade, the protection of "berried" fish is of paramount importance, but inspection of the fish shipped in the live state and the increased knowledge steadily dawning upon the fishermen, make this regulation easy as compared with the enforcement of the size limit, which is said never to have been observed by the canneries; and had it been, would have closed them. It is felt that even the acceptance of a standard trap will not solve this problem. Yet a plan remains, a conclusion long pending, shelved from time to time to suit temporary requirements, yet following logically from past enquiries. As it must eventually be called into use, the sooner it comes the better for the permanency of the industry; for, with the catch declining from year to year, an increasing number of canneries will be compelled to cease operations, which state of affairs is now either at hand or not far off.

Since 1898 the fishing grounds of the Maritime Provinces have been divided into seven sections. Each section has its own close season extending over different periods, suitable to local necessities. The proposal is to close the entire fishery in one or more sections during a specified period; for instance, first close section 1, then section 2, and open section 1, and so on right through. It may be found, however, by a board to be appointed for the purpose of evolving and working out the best plan, that better results would be obtained by a combination of open and close seasons in the different sections. The inception of such a plan will, it is said, afford ample opportunity for the lobster to propagate. During the succession of open and close seasons, the market would be retained, though by a diminished supply, by the sections wherein the industry is being pursued.

Artificial Methods of Culture Tending to Conservation.

Of late years two artificial means of culture have been tried, the hatchery and the natural pound. During 1911-12 about 969,250,000 fry (*i.e.*, young lobsters) were put into the sea from the fifteen hatcheries in Nova Scotia. The eggs which have been scrubbed off the berried lobsters delivered by the fishermen to the canneries are collected by Government boats which call at the canneries for them. They are taken to the hatcheries and there placed in upright cylindrical glass jars through which pure sea water continually flows to keep the eggs in motion. After the eggs are hatched, the fry are placed in the sea in the vicinity of the fishing grounds, anywhere from one to three miles from shore. By means of the hatcheries the shad and salmon supply has been assured, and that of whitefish in Lake Erie quadrupled in twenty years; yet the method is unsuccessful with bass, because of the nature of the ova, and in the case of the lobster it is held that the distributed fry are but food for the large number of fish that prey on the young lobster while it is swimming on the surface and before it reaches the grounding stage, when it sinks to the bottom and is able to take care of itself. Here lies the practical difficulty with the success of the lobster hatchery.

A method has been suggested by men who, from a scientific study of the methods of propagation of the lobster, a practical knowledge of our coast line and long experience in the business are well qualified to be heard. They advocate the setting aside of sheltered harbors, coves or bays, as natural pounds to supplement the hatcheries. These pounds would be screened from the sea by wire netting or some better means, the young fry from the hatcheries to be confined therein until they arrive at the stage where they can guard themselves. There are many such suitable bays, coves, etc., such as Bedford Basin, Wallace Bay and the Bras d'Or Lakes in Cape Breton, which could be put in use at little expense. Of course fishing to be wholly prohibited within the pound limits. It is estimated that less than one-half of one per cent. of the fry from the hatcheries reach the grounding stage. Our annual total catch of lobsters lies between 70,000,000 and 90,000,000. Could one per cent. of the hatchery fry attain maturity our supply might be increased without depending at all on the methods of nature.

Experiments similar, but with the following difference from this method, have been successfully carried on. Instead of confining fry from the hatcheries in the pounds, "berried lobsters" were placed therein. The fry crawled through the netting into the sea as it hatched, and with the coming of the close season the mother lobsters were also liberated. This method is also excellent, and has been very favorably reported upon by special Government officials, but under present conditions it is thought that the safest and most economical manner of experiment lies in the establishment of pounds to receive the fry from the hatcheries and bring it along to the stage where it can shift for itself.

Lobster Legislation.

The purpose of fishery legislation is the protection of the fisheries as a national resource. The practical aim is the conservation of the supply, with as little interference as possible with the industry as now carried on.

Following the experience of lobster legislation in the United States, our first fishery laws were enacted in 1873. The taking of soft-shelled and "berried" fish was prohibited, and a weight limit of one and a half pounds set. The next year the weight limit was exchanged for a size limit of nine inches and a close season during which no lobsters could be taken during July and August. Few changes occurred until 1898, when the findings of the Commission of that year resulted in laws dealing chiefly with the size limit and a sectional close season depending on climatic conditions and local necessities.



Manufacturers' Automatic Sprinklers

ARE FIRE'S WORST ENEMY

Their installation in any plant is an **investment** as well as **protection,** because **they reduce insurance premiums to such an extent that their cost is saved in from three to five years.**

Endorsed and recommended by all fire underwriters, and by every modern architect and construction engineer.

May be installed in old or new buildings without interfering with manufacturing operations.



The General Fire Equipment Co., Ltd.

72 Queen Street East, Toronto, Canada

In 1910, following Commander Wakeham's report, the size limit was abolished, and a standard trap having laths one and one-quarter inches apart was recommended.

The leading regulations relate to the close season, protection of the "berried" fish and the size limit.

The close season must depend on local necessities and climatic conditions, and therefore be sectional. It should cover the time of spawning. It can be enforced, perhaps, better than other restrictions, and its strict observance, especially in some districts, would do much towards checking harmful operations. Extension of the season, a favor at the option of the department, has almost always proved a distinct injury both to the fishery and the men.

The protection of the "berried" fish is most essential. As a prohibitory means, to require each fisherman to take out a license, to be cancelled on breach of the laws, might not be too drastic. The canner's license also to be revocable for receiving seed lobsters. But as a progressive move, a great deal of good would certainly follow an educational campaign to induce the men to return the "berried" lobsters to the water in their own permanent interest, an undertaking becoming more and more possible since many fishermen now realize and even advocate such a policy.

The size limit has never been observed, and it is said to be impracticable where the canneries exist. As far back as 1873 it was held that the enforcement of the then 9-inch limit would close the canneries. In 1910 the limit was abolished, the apparent reason being the general laxity of enforcement. A standard trap was recommended, and later became law. The opinion is general, however, that the purpose for which the size limit was enacted is still to be realized. Should the size limit be found necessary, what then? If enforced, the canneries must close; if unenforced, depletion is feared. What can be done?

It may be well to spend a little money at once, experimenting with supplementary natural pounds. If this plan fails, the closing of the industry in alternate sections will be left.

All laws should be based on facts and capable of enforcement with a reasonable staff. Those who know that fishery laws exist also know that they are but slightly regarded. Acknowledging this fact, all kinds of suggestions have been offered as to the next best move. Yet it has been the general opinion that the strict enforcement of existing laws would guarantee the permanency of the industry. But under the present system of political patronage, when the enforcement of laws is entrusted to men, many of whom are incompetent, dishonest, slothful and wholly unfitted for such positions, what can be expected? It would be a great aid towards conservation were the existing laws, though not strictly enforced, at least not openly violated.

Some Other Needs of the Industry.

The special needs of the lobster industry is the general need of the fisheries of Nova Scotia. There is a feeling that the fisheries ought to be controlled by men who know something of fish and are located not so far inland. A permanent board, to which men are appointed and promoted on merit, after the plan of the civil service, a board having fairly wide powers and as free from party politics as possible, would relieve the Minister of many unpleasant tasks.

Those in charge of hatcheries ought to know the methods of scientific fish-breeding, and even superintendents and inspectors not entirely ignorant of fish and fishery methods. There is also a need of knowledge, such as would emanate from scientific enquiries, and be something more than mere observations. A college, supported by the Government for the advancement of the fishing interests, stands just as much in need as those now advancing the farming and the manufac-

turing pursuits. Experiments in biology and the best methods of catching, curing and marketing our commercial fish could be carried on. Lectures also from time to time and demonstrations could be given in various fishing villages throughout the Province.

Were this idea realized, results would soon be forthcoming, with the enforcement of laws becoming easier and needs of legislation not so urgent.

These are a few of the needs of the fisheries of Nova Scotia. It is the opinion of those well informed on local conditions that the expenditure of a small amount of money in the carrying out of some of the above suggestions would go a long way towards the conservation of this valuable industry and add much to the future value of the natural resources of the Province of Nova Scotia and of the Dominion.

BETTER EDUCATION FOR FARMERS.

Mr. Thompson, of St. Catharines, Ont., speaking in 1906, declared that Ontario farmers were neglecting their opportunities. Of a total crop of some 50,000,000 bushels of apples in Ontario, fully one-half was wasted through neglect of proper marketing, proper selecting, etc. The market was unlimited. The only thing needed was proper packing and shipping, proper labelling, and more aggressive efforts to capture the market. Here is a field for state paternalism, from which the farming classes might reap inestimable benefit. If the governments of the different provinces would stimulate the organization of farmers into commercial societies and units, and encourage their education along practical commercial lines, the result would be a great benefit to the whole country, not merely by helping the farmers financially, but by thus saving the national resources of the country from needless waste. More is needed than financial encouragement of such farmers' clubs. Could not the example be followed which has been set by the Ontario Government in posting graduates of agricultural colleges in the various counties to help the farmers in *scientific* knowledge ?

COLEMAN FARE BOX CO.

The Coleman Fare Box Co., Limited, has been incorporated under the Ontario Companies Act with a capital of $75,000 to manufacture fare boxes for electric railways, etc. It has bought the business carried on for many years at Tottenham, Ontario, by the late J. H. Coleman, who was the pioneer in the field, and also the business of the Coleman Fare Box Co., incorporated under New York State laws. The Canadian works will remain at Tottenham, but the head office and sales department will be at 70 Bond Street, Toronto. The directors are Acton Burrows, W. H. Knowlton, Noel Marshall, R. B. Nordheimer and A. A. Burrows of Toronto, the latter being the Manager.

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of October, 1913.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload lots; L.C.L., less than carload lots.)

C.R.C.	R.R. No.	Effective.	Description.
Buffalo, Rochester & Pittsburg Ry.			
677 cancels 534	A1597 cancels A920	Nov. 15-13	Iron and steel articles, P. & L. E. stations to points in Canada. Advance.
702 cancels 532	A1712 cancels 3770	Nov. 15-13	Iron and steel articles, P. & L. E. stations to points in Canada. Advance.
688 cancels 599 612	A1616 cancels A1197 A1260	Nov. 15-13	Iron and steel articles, Buffalo to points in Canada. Advance.
712 cancels 561	A1730 cancels A975	Nov. 15-13	Pig iron, C.L.B.R. & P. stations to points in Canada. Advance.
Canadian Pacific Railway.			
2669 cancels E2189	E2285 cancels E1785	Nov. 24-13	Commodities, C.P. stations to St. John for export. Advance.
E2670 cancels E2091	E2286 cancels E2491	Nov. 24-13	Commodities, C.P. stations to Boston, New York, etc., for export. Advance.
Sup. 1 E2777	Sup. 1 CF253	Oct. 23-13	Plastic Lbr. c.l., Ottawa to Montreal. 10c. per 100 lbs. Reduction.
Sup. 61 E 2492	Sup. 61 E 2092	Nov. 4-13	Commodities between C. P. stations. Reduction.
Sup. 33 E 2141	Sup. 33 E 1737	Oct. 31-13	Reshipping, stop off and special arrangements. Reduction.
Sup. 62 E 2492	Sup. 62 E 2092	Nov. 10-13	Commodities between C. P. Stations. Reductions.
Sup. 59 E 2492	Sup. 59 E 2092	Oct. 30-13	Commodities between C. P. Stations. Reduction.
Hocking Valley Railway.			
143 cancels 140	B 1768 cancels B 1760	Nov. 15-13	Pig Iron, and Iron and Steel Articles, H.V. stations to points in Canada.
Lake Erie & Western Railway.			
115 cancels 56 87	310 B cancels 203 A 1218 D	Nov. 15-13	Commodities L.E. & N. stations to points Canada.

ARE YOUR STEAM PIPES INSULATED?

IF NOT YOU ARE BURNING MONEY

A **GOOD** Covering pays for itself in one Season, and is a revenue producer indefinitely.
The Best is the Cheapest. ☞**WE HAVE IT.**

EUREKA MINERAL WOOL & ASBESTOS COMPANY

118 ADELAIDE STREET WEST, TORONTO, ONTARIO

Bessemer & Lake Erie Railroad.

C.R.C.	R.R. No.	Effective.	Description.
139 cancels 99		Nov. 15-13	Iron and steel articles, B. & L.E. stations to points in Canada. Advance.
142 cancels 102		Nov. 15-13	Iron and steel, B. & L. E. stations to points in Canada. Advance.

Buffalo, Rochester & Pittsburg R. R.

707 cancels 641	A1725 cancels A1378	Nov. 15-13	Scrap iron and steel, Rochester, N.Y., to Cobourg and Toronto. Advance.

Cleveland, Cincinnati, Chicago & St. Louis Ry.

340 cancels 309 132 317		Nov. 15-13	Iron and steel, C.C.C. & St. L. stations to points in Canada. Advance.

Grand Trunk Railway.

Sup. 3 E 2783	Sup. 3 C.I. 146	Nov. 7-13	Pig Iron C.L. Port Colborne to New Glasgow, N.S., $4.00 per gross ton. Reduction.
Sup. 9 E 2379	Sup. 9 E 40	Nov. 24-13	Class and Commodities from stations Montreal and West to New York, Philadelphia and Baltimore for Export.
Sup. 18 E 1985	Sup. 18 E 37	Nov. 23-13	Class and Commodities to Boston, Halifax, St. John & Portland for Export.

Erie Railroad.

151 cancels C 94	151 cancels A 3889	Nov. 16-13	Iron and Steel Articles Erie R.R. stations to points in Canada. Advance.
147 cancels 115	142 cancels A 4323	Nov. 15-13	Iron and Steel Articles Erie R.R. stations to points in Canada. Advance.
146 cancels 135	34 A cancels A 4787	Nov. 15-13	Iron and Steel Articles Erie R.R. stations to points in Canada. Advance.

Chicago, Indiana & Southern Railroad.

153 cancels 112		Nov. 15-13	Class rates, C.I. & S. stations to points in Canada. Advance.

Philadelphia and Reading Railway.

459	———	Oct. 10-13	Commodity rates P. & R stations to points on G.T. Ry.
465	———	Oct. 10-13	Castings, radiators and stampings, P. & R. stations to Bridgeburg, Ont.

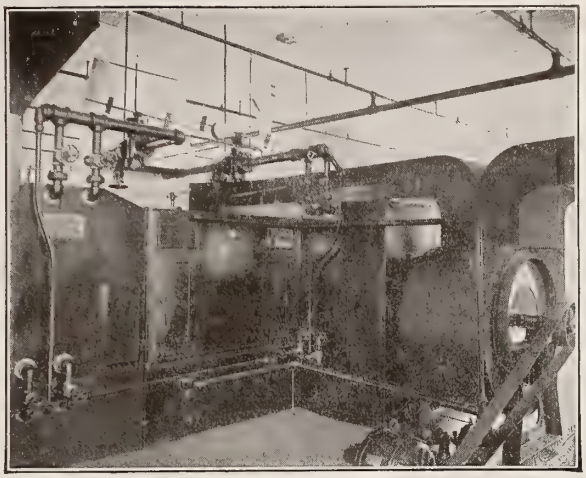
Pere Marquette Railroad.

1634	4100	Oct. 4-13	Copper, ex. lake, Sarnia, to Wallaceburg, Ont. Reduction.

Central Railroad of New Jersey.

686 cancels 590	———	Oct. 10-13	Iron and steel articles, C. R. R. of N. J. stations to points on C.P.R.
687 cancels 438	———	Oct. 10-13	Iron and steel articles to G. T. stations.

Made in Canada



Administration Building
Heated, Ventilated and Cooled by a "Sirocco" System.

"Sirocco"
TRADE MARK

MADE IN CANADA

HEATING, VENTILATING and COOLING SYSTEMS

Are designed by "Men who Know" the intricacies of mechanical ventilation. "Sirocco" System gives that satisfaction most cherished by Contractor and Owner — **Results.** Every "Sirocco" System is designed to meet the particular requirement of each individual case. "Sirocco" Fans have been tested by unprejudiced Engineers who have proven them to be the **most efficient commercial fan manufactured.** Contractors advocating the use of "Sirocco" Fans or Fan System have at their command the co-operation of our most able and experienced Engineering Department.

Sirocco Catalogue No. 102 will interest you. It contains tabulated information about Sirocco Heating and Ventilating Systems.

CANADIAN Sirocco COMPANY LIMITED

WINDSOR. ONTARIO.

SALES ENGINEERS

CLARK T. MORSE, 301 McGill Building, Montreal
E. C. POWERS, Room 5, 43 Victoria Street, Toronto
W. P. EDDY, 214 Donald Street, Winnipeg
S. S. CLARK, 605 2nd Street West, Calgary

PRICES UPWARD.

The Department of Labour index number of wholesale prices stood at 136.8 for October, 1913, as compared with 136.0 in September, and 135.0 for October last year. Corn, peas, Ontario barley, hay and bran were higher, but wheat, flaxseed, western oats and barley were lower. Cattle and beef were higher, but hogs and hog products continued to decline. All dairy products were higher except cheese. Fresh Canadian fruits and potatoes advanced, but imported fruits, beans, onions and canned vegetables were lower. Record prices for jute and the highest price for cotton since 1911 raised the level of textiles. Copper, brass and lead were up, but steel, tin quicksilver and quicksilver were lower. Brooms were steeply up. Rope and raw rubber declined. In retail prices, meats, eggs, milk and butter were higher, but there was a general decline in potatoes as the crop came on the market. Beans, flour, rolled oats and sugar showed weaker tendencies, while evaporated apples and coal were upward. As above stated, the general effect of the month's changes was to send the level distinctly higher.

PROTECTING THE PAY ENVELOPE.

It was noticed some time ago in a manufacturing plant employing several hundred men that a considerable number of the employees failed to receive their pay envelopes because some one else had previously given their names and numbers and had obtained the money. For a while the employing company made second payments to the defrauded men without question. Because of this loss, and because the workman so receiving his pay, which had previously been given mistakenly to another, soon found himself under suspicion or the possibility of it, a plan was devised to avoid a recurrence of these practices. Each pay day, before the hour of paying off arrives, the foremen are given cards for distribution to their men. These are dated, and each has the name and number of a workman. He signs his name below the statement, "I hereby acknowledge receipt of wages due this day," and below the signature is the statement, "this receipt must be delivered to the paymaster before wages will be paid." The pay envelope is given in exchange for this receipt.—*How.*

The Elmira Furniture Co., Limited, Elmira, Ont., are building an addition 100 x 50 ft., three stories high, brick, mill construction. It will be used for a cabinet-room, glue-room, finishing-room and storehouse. The cost, with equipment, is $15,000. It is now completed and ready for use, and will mean an increased capacity of almost 100 per cent.

BUILDING AT STRATFORD.

Stratford is adding another furniture factory, to be called the Classic Furniture, Limited. They will manufacture a good grade of bedroom furniture. Mr. Davies, of Stratford, will have charge of the office end, and Mr. Saunders, formerly of Chesley, will be the Superintendent. For the present they are to use the Orr furniture factory, that has been vacant some time. A full line of new, up-to-date machinery is being installed, and they hope to be under way in a month.

The new Farquarson, Gifford Co. factory is completed, and is one of the finest factories in the city.

A new factory is to be installed to manufacture paper boxes in the Kalbfleish Building.

The city is voting on a by-law on November 7th to guarantee the bonds of Avon Knit, which concern on the passing of the by-law will treble their plant and add underwear to their line of manufacture.

PRIVILEGES OF FRENCH TREATY RATES OF DUTY WITHDRAWN FROM BOLIVIAN PRODUCTS.

The Customs Department has issued the following memorandum to Collectors of Customs relative to above, viz.:

Referring to Memo. 1566 B of the 1st January, 1910, you are advised that products of Bolivia are subject to duty under the General Tariff on importation into Canada, as there is now no Treaty or Convention affecting Canada under which Bolivia would be entitled in whole or in part to Most Favored Nation Treatment with respect to its commerce with Canada.

ATTENTION. MANUFACTURERS

Canada Patent No. 142439 Fertilizer Distributer and Seed Sower combined. Will sell outright or manufacture on royalty basis; consider any proposition. A machine for general purpose, which does the work of two to three drills, saves labor and time; a great machine for large farms. Show model to interested party. Louis Mehlberger, Inventor, General Delivery, Detroit, Mich.

At a recent meeting of the Canora, Saskatchewan, Board of Trade, a proposition was submitted by Mr. C. R. Graham, whereby the Board of Trade has been given control of over $100,000 worth of trackage property located within the town limits, and to be held by the town as an asset to be disposed of at a nominal price of $1.00 per acre to manufacturers, wholesalers and public institutions desiring to locate there. The proposition was unanimously accepted by the Board of Trade, and plans are already under way for a comprehensive advertising campaign whereby they will endeavor to place their claims as a distributing centre before Eastern manufacturers and distributors.

ACCEPT PARCELS UP TO $50.

New Custom order authorizing postal parcels, express parcels and baggage valued up to $50.00 (instead of up to $25.00, as heretofore), to be cleared on small collections entries, the following instructions have been sent by the Department of Customs to Collectors of Customs:

"Referring to memo 1565 B, of 1st January, 1910, in the above matter, it is ordered that on and after 1st December, 1913, small collections entries of imported goods to the value of fifty dollars on any entry, instead of twenty-five dollars as heretofore, may be accepted in respect of Customs Postal Parcels, Express Packages, and Baggage, and also for goods arriving at Customs Collecting Stations."



As the American Economist Pictures the Result of the New Tariff Law

HOW DO YOU CARRY YOUR FUNDS WHEN TRAVELLING?
Surely not in Cash!

THE SAFEST AND MOST CONVENIENT WAY TO CARRY YOUR MONEY IS IN THE

TRAVELLERS' CHEQUES
OF THE
DOMINION EXPRESS COMPANY

These Cheques show on the face thereof the exact amount you will receive in the various countrie: throughout the world, and as they are accepted by first-class Stores, Hotels, Tourists Agencies, Express, Railway and Steamship Agencies, Banks and Bankers, in addition to our regular correspondents, no difficulty is experienced in getting them cashed at any hour of the day They are issued in denominations of $10, $20, $50, $100 and $200, are self-identifying, and protect you in the event of the loss of the cheques.

OVER FIFTEEN THOUSAND REGULAR CORRESPONDENTS THROUGHOUT THE WORLD

For Further Particulars Apply to our Local Agent

Toronto City Offices:
48 YONGE ST. and 1330 QUEEN ST. W.

Agencies in all C.P.R. Stations and Branch Agencies in Drug Stores, etc.

Conveniently Located in Residential Districts.

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

839. **Wrapping Paper.**—A Maritzburg firm of paper dealers requests samples and prices on Canadian-made wrapping paper.

840. **Paper Bags.**—A Maritzburg firm of stationers, etc., desires samples and quotations on paper bags.

841. **Organs.**—A Maritzburg firm requests catalogues and prices on Canadian organs.

842. **Hasps.**—A Natal firm requests samples and quotations on safety hasps.

843. **Furniture.**—A Natal firm of general merchants desires prices and catalogues of cheap painted furniture packed in knockdown state.

844. **Chairs.**—A Natal firm of general merchants wishes catalogues and prices of chairs.

845. **Dairy Machinery.**—A Maritzburg firm desires catalogues and prices of Canadian dairy machinery.

846. **Dairy Implements.**—Prices and catalogues on Canadian-made dairy implements are requested by a Natal firm.

847. **Woodenware.**—A Maritzburg firm of general merchants is prepared to purchase all lines of woodenware. Catalogues and prices requested.



MADE IN CANADA

Canadian Hart Wheels

CUT FASTER LAST LONGER
Than any other wheels on the market

Tell us the service you want performed and we will supply you with an abraser that will save you time, money and worry.

Send for one of our catalogues and tell us your troubles. We do the rest. :: :: :: ::

CANADIAN HART WHEELS LIMITED
450 BARTON ST. EAST
Hamilton :: :: :: Ontario

POLSON IRON WORKS
LIMITED
Toronto - Canada

STEEL SHIPBUILDERS
ENGINEERS AND
BOILERMAKERS

Hydraulic and Dipper Dredges, Steel and Composite Steamers and Yachts, Marine and Stationary Engines and Boilers. :: ::

Office and Works
ESPLANADE STREET EAST
Toronto

AGENTS FOR QUEBEC
WATSON JACK & CO.
709 Power Building - Montreal, Que.



Keep the Wheel Moving Towards REGINA

You, as a keen business man, have been looking for a point in the West to which you can consign your goods in large or small quantities. Now is the time when we can satisfactorily settle that question for you, help you to save freight, time, and give you every advantage of the services of a thoroughly reliable Forwarding Company.

STOCK IN REGINA MEANS THE QUICKEST DISTRIBUTION FOR YOU

Let our warehouse be your Western Branch. Keep a stock here and let us relieve you of all worry as to distribution. We have absolutely reliable forwarding and checking clerks of experience. Our charges are reasonable, our reports regular, and shipments prompt. As a business man you can readily see that Regina is the

NATURAL LOGICAL CENTRE

for Western distribution and we are the largest and oldest established Forwarding Company in the West.

Money has been tight in the West. Never in the history of the West has it been tighter, but now farmers are smiling, crops have been good, money is going to move freely. Get your stock here early. Be on the ground for the opening of business. We are serving scores of Eastern Manufacturers and Merchants. Let us show you what we can do for you.

WRITE US ABOUT YOUR LINE

Regina Storage & Forwarding Co., Ltd.
REGINA, SASK.



FIRE EXTINGUISHERS

EVERY manufacturing plant should be equipped with our CHEMICAL FIRE EXTINGUISHERS.

Your insurance agent can tell you the exact amount our "IMPERIAL" Extinguishers will save you.

THE BOOTH-COULTER COPPER & BRASS CO.
LIMITED

TORONTO

848. **Splitwood Pulleys.**—A Natal firm of hardware merchants can handle a quantity of splitwood pulleys, small sizes, 6 to 18, and a few 24.

849. **Handles, Pickaxe.**—A Natal firm of general merchants desires prices and catalogues of pickaxe handles.

850. **Condensed Milk.**—Correspondence and prices invited by a Natal firm of general merchants on Canadian condensed milk.

851. **Locks.**—A Natal firm requests catalogues and prices of Canadian-made locks.

852. **Handles.**—A Maritzburg firm desires samples and quotations on hickory pick and tool handles of all kinds

853. **Shovels.**—A South African firm wishes catalogues and quotations on Canadian-made shovels.

854. **Agricultural Machinery.**—Catalogues and price lists are requested by a South African firm of commission agents.

855. **Motor Tractors.**—A Johannesburg firm of machinery dealers will take up a Canadian agency for above.

856. **Handles, Pick, Axe and Tool.**—Catalogues, prices and samples if possible are requested on above by a large importing house in Johannesburg.

857. **Wire Nails.**—A South African firm of general merchants desires samples and prices on Canadian-made wire nails.

858. **Asbestos.**—Samples and prices are requested by a South African importing house.

859. **Dairy Machinery.**—A Johannesburg firm of merchants desires correspondence with Canadian manufacturers and exporters of dairy machinery.

860. **Washing Machines.**—A Johannesburg firm of general importers desires catalogues and prices of Canadian manufactured washing machines.

861. **Churns.**—Catalogues and prices are requested by a South African firm of hardware jobbers.

862. **Household Hardware.**—Catalogues and prices are requested by a South African firm of general merchants on all kinds of Canadian-made household hardware.

863. **Motor Cars.**—A Pretoria agent representing one of the large agricultural machinery manufacturers of the U. S.A. is prepared to take up a motor car agency in connection with his agency. Is in a position to handle effectively, as he has a large organization in the Transvaal and Rhodesia.



WANTS MANUFACTURES

THE remarkable growth of the cities, towns and agricultural districts in Western Canada has created an UNPRECEDENTED DEMAND for Industries of ALL KINDS. Winnipeg wants Additional Factories, and offers the best labor market in Canada. Electric Power and Light from 60,000 municipal plant at cost, cheap sites, low taxation and best distributing facilities in all Canada.

THIS IS YOUR OPPORTUNITY
RIGHT NOW IS THE TIME
WINNIPEG IS THE PLACE

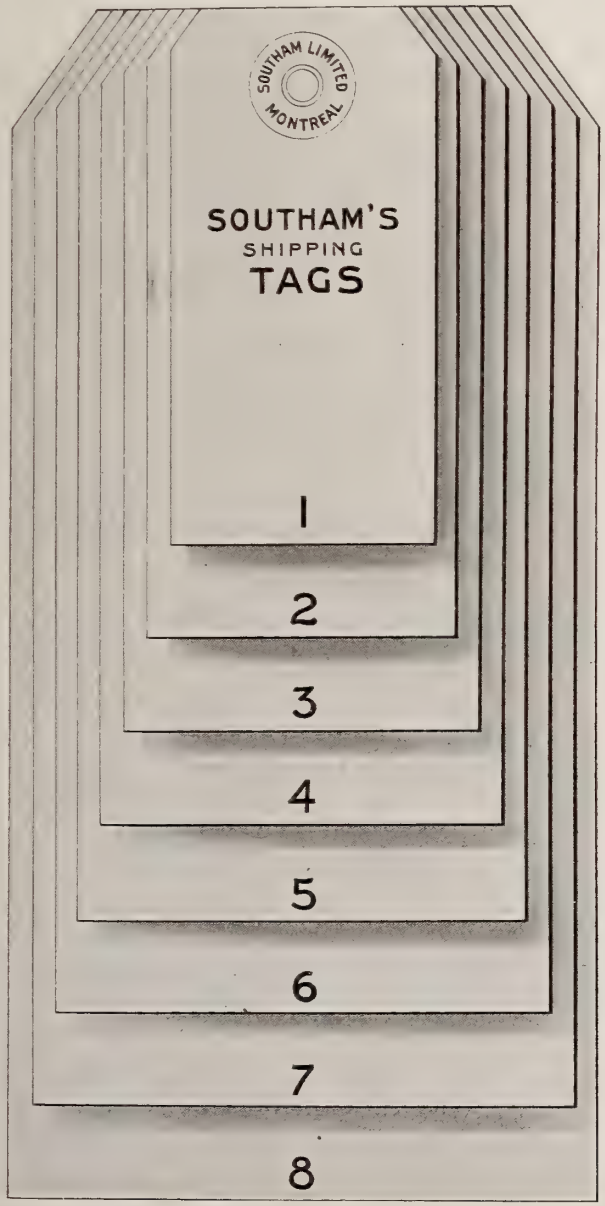
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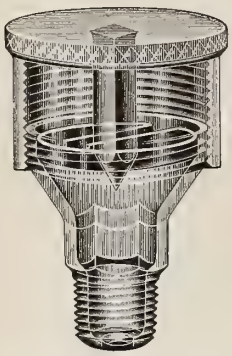
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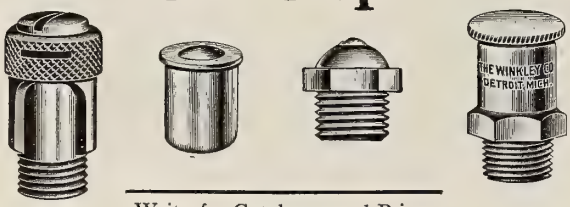
TRADE WINKLEY MARK



Grease Cups

We Manufacture a Full Line of Plain, Compression Leather Washer and Ratchet Grease Cups in any finish required.

Complete **Oil Cups** Line



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Manufactured by

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Are You Sure Your Electrical Wiring is Safe?

There is but one absolutely safe method of wiring. Instal a CONDUIT SYSTEM, it will eliminate all risk of Fire.

"Galvaduct" & "Loricated" "Conduits"

HAVE NO EQUALS

Conduits Company Limited

TORONTO ***MONTREAL***

864. **Washing Machines.**—A Transvaal firm of importers wishes catalogues and prices on Canadian-made washing machines.

865. Extension Tables.—A South African firm of furniture and hardware merchants would like catalogues and prices on Canadian-made extension tables.

866. **Motor Cars.**—An Orange Free State firm, well established in motor car business, wants a Canadian car to sell complete in South Africa for about £250. Cable if prepared to offer agency for a substantial car at this price.

867. **Wheels, Complete and Parts.**—An Orange Free State firm of carriage builders would like to communicate with Canadian manufacturers and exporters of carriage and waggon wheels, complete and parts.

868. **Condensed Milk.**—A Bloemfontein firm of produce merchants desires samples and prices on Canadian condensed milk.

869. **Carriage Parts.**—A South African firm of commission agents desires correspondence with Canadian manufacturers and exporters of carriage parts.

870. **Waggon Hoops.**—A Capetown firm of commission agents desires correspondence with Canadian exporters of waggon hoops.

871. **Hatchets.**—A South African firm of hardware importers wishes catalogues and prices on Canadian-made hatchets; f.o.b prices required.

872. **Wheels and Undergear.**—A Maritzburg firm will buy in quantity, if they can secure, wheels and undergear for waggons. Cut of same to be had from the Department at Ottawa. Wheels and parts to be nested in threes or sixes.

873. **Bolts and Nuts.**—Samples and prices are requested on bolts and nuts of Canadian manufacture by a Natal firm.

874. **Wire Fencing.**—A Johannesburg firm can handle in quantity a woven wire fencing, size 10, welded at joints. Correspondence solicited.

875. **Asbestos.**—A reliable agent in Paris desires to get in touch with producers of asbestos and asbestos products.

876. **Brushware.**—Catalogues and prices are requested by a South African importer.

877. **Leather, Sole Bends.**—A South African firm makes inquiry for Canadian sole bends. Prices and samples requested.

878. **Furniture, Cheap.**—Prices and catalogues are asked for by a Transvaal firm of importers.

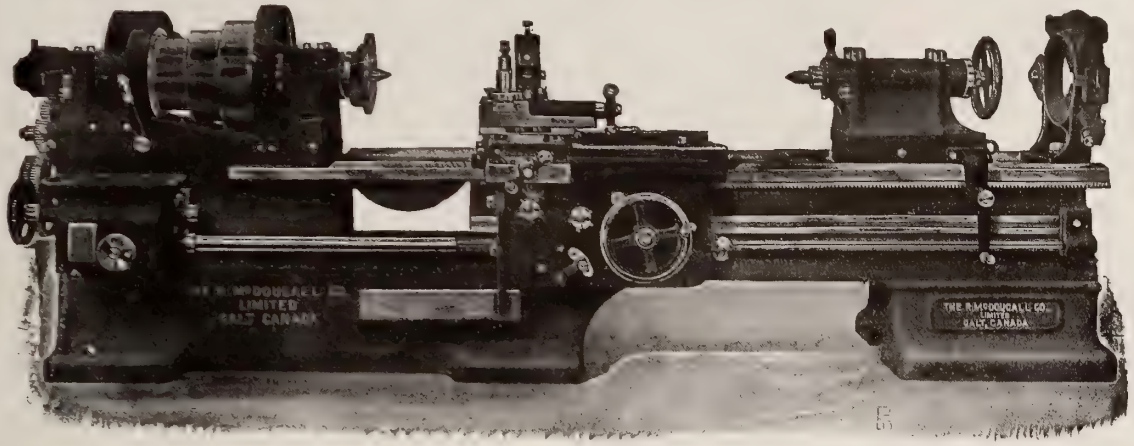
879.—**Organs.**—A Transvaal firm of importers requests correspondence, catalogues and prices on organs, best value possible, about £9 to£10.

880. **Leather Belting.**—A South African firm of importers requests samples and catalogues, with prices on Canadian belting, all widths 1-6 inches.

881. **Washing Machines.**—Inquiry is made for catalogues and prices on Canadian-made washing machines.

882.—**Cereal Foods.**—A South African firm of importers would like to correspond with Canadian exporters of cereal foods.

Are Your Lathes "Weak Links"?



IS your entire factory production choked by limited lathe capacity? Very few products are factory produced which are not dependent upon lathe work at some stage.

The McDougall Gap Lathe has reserve strength and massiveness to allow safe "speeding up" of the cut. At the same time, it has top adjustment tailstock bolts, and similar devices to making "changing" as easy as in a small lathe. Consult us for a full description of the McDougall Lathe as well as help in solving your productive problem. We will gladly help you.

THE R. McDOUGALL CO. LIMITED - GALT, CANADA

Cable Address: DOUGALT. Code: A.B.C. 5th.

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Showrooms: Montreal, Toronto, Ottawa, Winnipeg, Saskatoon, Calgary, Vancouver, St. John, N.B.

When You Get "MORROW" Product You Get the Very Best Made



SET SCREWS CAP SCREWS FINISHED NUTS
SEMI-FINISHED NUTS TWIST DRILLS

If your Jobber hasn't "Morrow" make in stock he will get it for you. If he won't—we will

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LIMITED



An Advertising Campaign to Suit Your Particular Goods

NOT every manufacturer can profitably advertise to the PUBLIC. But every manufacturer can profitably advertise to those whom he knows are POSSIBLE BUYERS. Do you make an article for which there is a "limited market"? If so ask us to submit our plan for increasing sales—designed according to the amount of your appropriation and nature of your goods. We will do so without obligation to you.

ROUS & MANN, Limited
TORONTO AND MONTREAL

BROWN BROS. LIMITED

Manufacturing Stationers

51-53 Wellington St. W. - TORONTO

We Manufacture and Keep in Stock

ACCOUNT BOOKS

Every Size and Kind

Loose Leaf Ledgers and Binders
Sheets and Specialties
Memo and Price Books
Diaries---Office and Pocket
Fine Leather Goods
Ladies' Hand Bags, Bill Cases
PAPER, OFFICE STATIONERY

AMONG THE INDUSTRIES

The Alaska Bedding Co. have completed their warehouse at Calgary.

Work is begun on the chopping mill of J. W. Rea, Kincardine, Ont.

A $150,000 plant is contemplated for Pilkington Bros., at Calgary, Alta.

Lever Brothers, Toronto, have made alterations to their factory; cost, $5,500.

Foundations are in for the felt hat factory of Walter G. Rumpel, Berlin, Ont.

The saw mill and boiler house owned by Manley Chew, Midland, Ont., is to be in operation next spring.

Plans have been made for the erection of a branch factory for the Berliner Gramaphone Co., Montreal, at Winnipeg, Manitoba.

A $120,000 factory is contemplated by the Royal Farm Machinery Co., at Prince Albert, Sask., has been granted a site of five acres.

An addition to their plant is contemplated by the American Road Machinery Co.; cost, $90,000. Ratepayers will vote on Nov. 29th to guarantee bonds and give fixed assessments.

The Ford Automobile Company will soon begin manufacturing automobiles in a large plant in St. John, N.B. The plant has rail connection with the Intercolonial Railway and the city electric railway nearly reaches the works.

Announcement has been made by the Russell Motor Car Co., Limited, Toronto, that Mr. B. S. Harris has been appointed to succeed Mr. F. G. Pennal, Montreal. He has taken over that branch of the company and has already entered upon his duties as manager.

The George White and Sons Company, Limited, London, Ont., have just completed the erection of a repair department at Moose Jaw, Saskatchewan, on the corner of High Street and First Avenue. They anticipate building a warehouse there next spring. Our intention is to ultimately make this branch the same as our Brandon branch, with a plant for assembling and repairing.

The business of Schmidt & Co., brass founders and manufacturers of bank fittings, etc., carried on in Winnipeg for the past 32 years by Mr. Andrew Schmidt, has changed hands. Mr. Schmidt, after a vigorous and energetic business career, has retired from the field of commerce, and is succeeded by Mr. Leopold Levinson, of Winnipeg, who will continue the business under the old style.

The Canadian Government Railways have been making some interesting experiments in lighting their passenger cars with natural gas. They had some difficulty at first in finding the right kind of burner to use; now this question has been settled by a series of tests and the illuminating of their cars by natural gas is very satisfactory. Natural gas is also used in the big Moncton car shops of the Canadian Government Railways, and from a standpoint of economy and convenience this has proved a valuable asset to the company.

Dominion Bridge Company, Limited

Head Offices and Works:
MONTREAL

Branch Offices and Works:
TORONTO, OTTAWA, WINNIPEG

CAPACITY 100,000 TONS

ENGINEERS AND CONTRACTORS

Steel Buildings of all Kinds
Railway and Highway Bridges
Swing and Bascule Spans
Turntables, Electric Cranes
Hoisting Appliances, Lift Locks
Hydraulic Regulating Gates, etc.

LARGE STOCK OF STANDARD STRUCTURAL MATERIAL AT ALL WORKS

THE CANADIAN BRIDGE CO., Limited

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MANUFACTURERS

RAILWAY AND HIGHWAY BRIDGES

Locomotive Turn Tables. Roofs, Steel Buildings and Structural Iron Work of all Descriptions

STRUCTURAL STEEL For Every Purpose

Estimates Furnished Promptly for all Classes of Steel Bridges, Buildings, Towers, etc., etc.

5,000 Tons Standard Structural Shapes Carried in Stock for Quick Delivery.

STRUCTURAL STEEL COMPANY, LIMITED

MONTREAL

NATIONAL BRIDGE CO.

OF CANADA, LIMITED

Designers, Fabricators and Erectors of Structural Steelwork for Bridges and Buildings of Every Description

ANNUAL CAPACITY, 20,000 TONS

6,000 tons of Beams, Channels, Angles, Plates, Flats and Bars always in stock at our works for QUICK DELIVERY, plain or fabricated. Designs and Estimates promptly furnished.

Main Office and Works - - - - - - MONTREAL, QUE.



Cut Down Your Light Bills With Properly Installed Reflectors



WE show here two styles of Benjamin Reflectors, designed especially for use in factories and foundries.

Reflectors of this kind, properly installed, cut lighting costs to the minimum and give greater lighting efficiency.

Our lighting specialist will be pleased to consult with you about equipping your plant with reflectors that give maximum illumination.

Asking the specialist at our nearest house to help solve your lighting problems places you under no obligation.

THE Northern-Electric AND MANUFACTURING CO. LIMITED

Montreal	Winnipeg	Edmonton
Halifax	Regina	Vancouver
Toronto	Calgary	Victoria

The British Canadian Canners contemplate an addition to their factory at Blenheim, Ont.

The grain elevator for the C. P. R. Company, St. John, N.B., will cost $500,000.

A. E. Rae Co., Limited, are making addition to their stores at Ottawa; cost, $250,000.

Forty-five thousand dollars is the estimated cost of the ice manufacturing plant for the Brantford Ice Company.

Plans are being considered by the Beauce Pulp & Lumber Co. for a new mill to replace the one destroyed by fire.

Foundations are in for the addition to warehouse of Regina Plumbing and Heating Co., Limited, Regina, Sask.

The Beverly Wood Specialty Company, Toronto, are erecting a new wood-working factory. They have applied to York township council to close Renora Crescent, east from Blackthorn.

The Avon Hosiery Company of Stratford, Ont., are planning an addition to their factory. Ratepayers voted on by-law to loan $25,000.

The Hunt Manufacturing Co., Walla Walla, Washington, U.S.A., are contemplating the erection of a branch factory at Wabanum, Alta.

While no alteration has been made in the personnel of the directorate of Woods-Norris, Limited, the firm name on and after November the 5th will be changed from the above to Norris-Patterson, Limited, Advertising Agency, Mail Building, Toronto.

Frank Stanley has recently purchased the factory on Carlaw Avenue, Toronto, at present occupied by J. M. Loose & Sons, piano action manufacturers, and at the end of their present lease will occupy same with considerable additions for the manufacture of the Stanley pianos.

The manufacturing industries in Sherbrooke are very active, the machine shops especially being particularly busy. The Jenckes Machine Company shipped fifty car loads of finished goods during the past month. The whole totalled a weight of 1,316,000 pounds. The shipments consisted of engines, crushers, mining machinery, etc., and were sent from coast to coast.

The Garlock Packing Company, of Hamilton, Ontario, have opened a branch at Calgary, Alberta, where a stock of packings will be carried. This branch is under the managership of Mr. J. T. Dohm, well known in British Columbia and Alberta. Mr. L. G. Hargreaves, of the Garlock Western staff, has been appointed Winnipeg branch manager, and Mr. W. B. Powell will represent the Company in Manitoba and Saskatchewan. The Garlock Company now have branches in Montreal, Toronto, Winnipeg and Calgary.

The Compressed Gas Company, Limited, of Vancouver and Alberta, are ordering large modern oxygen manufacturing plants for their works in both Vancouver and Calgary. This step has been found necessary owing to the fact that their present oxygen plant in Vancouver has proved inadequate to supply the demand upon it. The new plant will have a capacity of about 5,000 cubic feet of oxygen per day, and it is expected that they will be installed and in operation soon after the beginning of the new year.

THE GEO. B. MEADOWS

Toronto Wire, Iron and Brass Works Co., Limited

479 WEST WELLINGTON STREET - TORONTO, CANADA



FACTORY LOCKERS

"Meadows" Lockers are constructed to meet the needs of the modern factory. To give—

Each employee PROTECTION against disease and loss from petty thieving.

The employer PROTECTION against fire from lighted pipes carelessly left in pockets.

Neatness and order in the shop.



STEEL SHELVING

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Let us quote YOU on shelving.

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WIRE WINDOW GUARDS, IRON STAIRS, FIRE ESCAPES

Oxy-Acetylene Talk — No. 1

Mr. Engineer

When it breaks—have it welded! you will save time, temper and money this way!

Mr. Manufacturer

When your customers ask for "Welded" articles—what do you offer?

No RIVETS, no LEAKS, no TROUBLE!

Better see about your outfit! Our booklet explains, write at once.

L'Air Liquide Society

TORONTO, BOLER ST.
MONTREAL, 1 ERNEST ST.

The Montreal Lithographing Company, Limited

High Class Lithographers and Designers of

CALENDARS SHOW CARDS
LABELS OFFICE STATIONERY
ADVERTISING PLAYING CARDS

Office and Works
ONTARIO STREET & PAPINEAU AVENUE
MONTREAL, CANADA

The Stratford Mfg. Company are doubling their plant.

Petrolia Wagon Worke will build an addition to their factory, cost $70,000.

Plans are being made to enlarge the branch of the Winnipeg Ceiling and Roofing Co., Limited, at Edmonton, Alta.

The Pelee Island Wine & Vinegar Co. have had plans prepared for the erection of a plant at Grimsby, Ont.

The Kingston Iron & Tube Company have planned an iron and tube plant at Kingston, Ont. By-law passed and company will start plant at once.

The furniture manufacturers of Canada are to have a display of their goods in three of the buildings of Exhibition Park, Toronto, throughout next January. Dealers from the Atlantic to the Pacific will come to Toronto to see the latest designs and to place their orders.

The erection of the large plant of the Canadian Connecticut Cotton Mills at Sherbrooke, Que., is advancing rapidly. The location of this industry means more work for hundreds of hands, many of whom will be skilled operators brought to Sherbrooke, and will make their homes in this city.

The Quaker Candy Company now at 40-42 Lombard Street, Toronto, are putting up a new factory at 422-424-426 Queen Street East, Toronto. The factory will be three stories and basement, mill construction, and will cover a space 42 feet frontage by 100 feet depth. This is to be rushed to completion as quickly as possible, as they expect to occupy it about February 1st, 1914.

Many of the citizens of Moncton have had their furnaces changed from coal to natural gas, which, aside from the cleanliness and comfort, shows a considerable saving in cost. Turning the burner regulates the heat, and the freedom from ashes and the noise of shovelling coal and shaking the grate is appreciated by every householder. For manufacturing purposes the saving by natural gas is very important, one company showing a reduction of 17 per cent. Another factory which was paying $25 per month for lighting by electricity now secures a better illumination for $5 per month, while a third said their saving by the use of natural gas was $4 per day.

CONDENSED ADVERTISING

FOR SALE.

Old-established and well-known Canadian engineering company doing large business from coast to coast—an excellent opportunity for investors or for anyone wishing to extend operations in Canada by taking over a going concern with complete plant, staff and extensive connections. All communications strictly confidential. Address Box 1, "Industrial Canada."

TRAVELLER WANTED.

Wanted—To get in touch with a firm willing to share in expense of sending a traveller to the Maritime Provinces. Address Box 2, "Industrial Canada."

POSITION WANTED.

Factory superintendent with wide experience in economical productions will be open for engagement in a few weeks. Address D. C. B., "Industrial Canada," Toronto.

INDUSTRIAL CANADA

ISSUED BY

The CANADIAN MANUFACTURERS ASSOCIATION.

INCORPORATED.

Vol. XIV | TORONTO, JANUARY, 1914 | No. 6

INDUSTRIAL CANADA

Issued monthly as the official publication of the Canadian Manufacturers Association (incorporated), and devoted to the advancement of the industrial and commercial prosperity of Canada

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Industry Slows Down

IT is now evident that there is a general slowing down in the manufacturing plants of Canada. For some months intermittent and often contrary reports have come from the various industrial localities stating that certain manufacturers were slackening, while others were unable to fill their orders. But the concensus of present information must force the conclusion that the production of manufactured goods is falling off. This slowing-up takes many forms. Some manufacturers are running their plants fewer hours each day; some are taking a holiday or two in the week; some are laying off men; some are stocking in order to hold their men during the severe winter months; and a very few have closed down temporarily.

The general opinion of authorities seems to be that the present condition will continue, without further depression, until spring. Any inquiry as to what will happen after that time produces three different opinions. The majority believe that conditions will begin to improve in the spring and that the production of manufactured goods will increase. The minority say that the depression will continue at its present level during the summer and early fall, after which improvement will begin. A few pessimists state emphatically that no real recovery will be evident until the spring of 1915.

While it is a precarious thing to forecast an industrial future, we would like to point out several elements in the Canadian situation which, we think, will help to start our factories going at full capacity again.

In the first place, we have to feed, clothe and house the immigrants entering Canada at the rate of nearly half a million yearly. As we still import more manufactured goods than we export, the increased demand must automatically require production from our manufacturers. During the fiscal year ending March 31st, 1912, we imported manufactures to the value of $67,286,648, while our exports of manufactures amounted only to $42,508,985. During the fiscal year ending March 31st, 1913, we imported manufactures to the value of $91,199,425 and exported manufactures to the amount of $52,525,082. From these figures it appears that, as imports of manufactures are increasing more rapidly than exports, our factories must work to supply the home market if our immigration continues. Every immigrant becomes a producer as well as a consumer, whether he works in town or country.

In the second place, the Dominion Government has deliberately decided to spend many millions to help bridge the depression. These Government works, added to the other construction enterprises under way, must liberate great sums of money in wages, which will be spent for manufactured goods.

In the third place, there is no reasonable ground for believing that the production of the soil, the forest, the sea, and the mine will not increase rather than decrease during 1914.

The manufacturers of Canada are surely acting prudently in curtailing the production of manufactured goods for which, temporarily, the demand has slightly diminished. It would be unwise to lay up great stocks which might not be saleable, owing to an unexpected continuance of the financial stringency.

Scarcity is the food on which demand thrives, and the manufacturers, by avoiding over-production, are helping to restore prosperity, which cannot be long deferred when the normal demand returns.

Puffed Rice

AN extraordinary association, apparently evolved from the brain of one Elwood E. Rice, "founder and president," which seems to exist for the beneficent purpose of spreading out hands of approval over the heads of industrious manufacturers, is heralded by the following announcement, which shouts for itself:

> The Rice Leaders of the World Association desires to announce that their Committee has selected the
>
> CLAY PIPE COMPANY
>
> as the Recognized Leader of the World in the manufacture of
>
> SOAP BUBBLES,
>
> who, by invitation, becomes a Member of our Association, enjoying all the privileges and benefits thereof.
>
> **To Become a Member a Concern must Possess these Qualifications of Membership:**
>
> Honor: A recognized reputation for fair and honorable dealings.
>
> Quality: An honest product, of quality truthfully represented.
>
> Strength: A responsible and substantial financial standing.
>
> Service: A recognized reputation for conducting business in prompt and efficient manner.
>
> Upon this foundation is based the Emblem of the Association, marking highest business standing in name, product and policy.

The gorgeous effect of this announcement card is partly lost because of our inability to reproduce the crest which embellishes its top. In the perfection of this coat of arms the ingenuity of the entire staff of the College of Heralds might have been taxed. It starts with a young gentleman in a red chariot, drawn by several horses wearing gold harness, and running smoothly over the inscription "Be Guided by this Foundation." Under the foundation is a shield divided into four fields. In one field there is a green funeral wreath, in the second a sheaf of wheat, in the third a wild animal walking on his hind legs and making motions with his front legs, and in the fourth a young silver gentleman running swiftly—probably towards his lunch. Four wicked-looking spears are thrust carelessly through the banners which are wrapped about the shield to keep it warm, and twined about their handles is a scroll, bearing the words "Rice Leaders of the World Association."

We would like to know who appoints a manufacturer "the recognized leader of the world" in producing the particular article which he manufactures. Is it the admirable Mr. Rice? If so, how does he decide whether the manufacturer has the requisite degree of "honor," "quality," "strength," and "service" to make him a world leader? When he gets his information, where does he keep it? The industrial world must swim before him as he ponders and, like Jove, thunders periodically the name of a leader. Can one small head carry all he knows? We are aware that rice, when well saturated, swells visibly, but can this Rice expand so greatly without bursting?

Sir William and the Consumers

"THE employer may, and no doubt will, shift his burden upon the shoulders of the community," says Sir William Meredith, Special Commissioner on Workmen's Compensation for the Ontario Government, in his final report.

Sir William apparently admits that the schedule of benefits for workers suffering from injuries or industrial diseases which he provides in his bill will be a "burden" to the employer. He could scarcely conclude differently. In cases of permanent total disability the amount of compensation he favors is a weekly payment of 55 per cent. of average earnings for life. In cases of partial or temporary disability the same payment is advocated during the period of disability. Other benefits are in proportion.

But, says Sir William, the burden will be shifted "upon the shoulders of the community." The consumer will pay the compensation. Another addition will be made to the high cost of living. The consumer, who considers that he has already a burden of his own, will scarcely view with equanimity Sir William's proposal to shift another to his shoulders.

We'll Pay More for Fish

THE other day a trawler carried a cargo of 180,000 pounds of fish from the Gulf of St. Lawrence to the dock of the North Atlantic Fisheries, Limited, at Port Hawkesbury, Nova Scotia. In a comparatively short time the ninety tons of fish were stored in cold storage, ready for shipment. The removal of the United States tariff on fresh fish will increase the export trade of dozens of fishing towns and villages along the sea coast of the Maritime Provinces, Newfoundland and Labrador. The first cargo of free Canadian fish landed at Boston weighed 317,000 pounds.

While this will enrich those engaged in the industry, there are some probable results which can scarcely be regarded as beneficial to outsiders. The withdrawal of part of the supply to meet the export demand will increase the price of fish in Canada and will, consequently, bear to some extent on consumers in town and country. Also the greater rewards for labor will attract to the fishing fleets and fish plants young men from factories and farms. As fewer men will be available for factories, wages should rise; with fewer men on the farms, production should diminish and prices of farm produce should increase, which will add further to the cost of urban living.

Then why not remove our duty and let the New England fishermen send their fish into Canada free?

The reason why we cannot do this consistently is that the National Policy established protection for all classes—farmers, fishermen, miners and manufacturers. If we take protection away from the fisherman, how can we oppose any attempt to take it away from the manufacturers?

We must still keep the home market for our fishermen and rejoice, even while we pay more for the fish we eat, at any increased prosperity which comes to them through

the free admission of their product to the United States market.

We must remember, also, that no class in a nation can prosper without transmitting part of its prosperity to other classes. If the fishermen make more money they will spend more, and farmers and manufacturers will get part of what is spent.

If history repeats itself, low tariffs will not last long in the United States. With the turn of the tide, the Republicans will return to power, the duty against Canadian fish will be restored, and our fishermen will have to depend again upon the home market. Let them fish while the sun shines, and they will help the manufacturers to maintain the National Policy, which benefits all classes.

Words, not Deeds

THREE million words have been spoken in the Western Freight Rates case, which was completed in December. Nearly ten thousand typewritten pages of evidence have been taken. A quarter of a ton of exhibits has been deposited. No wonder the Dominion Railway Commission reserved judgment. If they read all the evidence and inspect all the exhibits, the next generation will hear their decision.

The verbosity of the railways in this case forms a contrast to the terse phraseology in which they issue orders to shippers or cut melons.

Will the great wind shake down any plums for the shippers?

Ten Greatest Modern Inventions

THE *Scientific American* recently opened a competition for essays on the subject, "What are the Ten Greatest Inventions of Our Time?" A great number of interesting and valuable articles was received by that journal, which submitted them to expert judges, with the result that the first prize was awarded to Mr. William J. Wyman, of Washington, D.C. Summarizing, Mr. Wyman says:

"In making a selection from the bewilderingly opulent array of creative activities of the period, only such inventions were included as were most revolutionary in character in the broadest fields, which affected most our mode of living, or which opened up the largest new sources of wealth. So weighing the merits of the different inventions, it is concluded that the ten greatest and their approximate date of successful commercial introduction are: (1) Electric furnace, 1889; (2) steam turbine, 1894; (3) gasoline automobile, 1890; (4) moving pictures, 1893; (5) wireless telegraphy, 1900; (6) aeroplane, 1906; (7) cyanide process, 1890; (8) linotype machine, 1890; (9) induction motor, 1890; (10) electric welding, 1889.

"The date of commercial introduction is held to be that from which orderly and continuous development proceeded."

In reviewing the inventions of the last twenty-five years the writer mentions the acceptance of electrical transportation, the high power generation and transmission of electricity, the advance in building due to structural steel and re-inforced concrete, smokeless powder, high speed steel, contact making of sulphuric acid, electrolytic refining of copper, emergency brakes, automatic telephone exchange, centrifugal cream separator, tungsten lamp, oil motor and armor plate.

After reading the winning essay, it is almost impossible to avoid speculating on the probable inventions of the next twenty-five years. The past century witnessed the perfection and introduction of more valuable inventions than the preceding thousand years, when men's energies and activities were principally devoted to war, to political intrigues and to religious fanaticism. It is not boasting to say that in the next twenty-five years Canadian inventors will introduce, and Canadian manufacturers will make, articles the perfection of which will mark great strides in scientific and industrial progress. At the end of that time Canada should be far from her old position, that of a raw material producing country, and should have a vast, interwoven and interdependent system of manufacturing, co-operating with agriculture, consuming nearly all of those raw materials which have been hitherto exported, and giving employment to thousands of highly skilled workers.

Successful Year for Grain Growers' Company

THE prosperity of the Grain Growers' Grain Company, as indicated in their annual statement, will be a source of gratification to all Canadians. A dividend of 10 per cent. was declared in spite of the fact that $96,610 was transferred to reserve. As the paid-up capital is $645,000 and the year's profits were $164,333, a dividend of over 25 per cent. might have been declared if nothing had been added to the reserve fund, which has now reached the comfortable sum of $183,000. The Company's assets are valued at $1,371,153. We congratulate the Company on the successful manner in which it has conducted its operations in spite of the financial stringency which has hampered the activity of many other concerns.

The Defeat of the Hatters' Union

IN giving judgment in the famous Danbury Hatters' case, in December, Judge Cox, of the United States Court of Appeals, said in condemning the sympathetic strike and boycott:

"No one disputes the proposition that labor unions are lawful. All must admit that they are not only lawful, but highly beneficial when legally and fairly conducted, but like all other combinations, irrespective of their objects and purposes, they must obey the law."

The trouble out of which the case arose occurred in 1901, when the United Hatters of North America declared a strike against D. E. Lowe and Company, of Danbury, Connecticut, as a punishment for the Company's refusal to unionize its factory. The courts found that the anti-trust law applied to the trade union, and gave judgment against its members for $252,250, which goes to the com-

pany to compensate it for the loss resulting from the strike and boycott.

This decision is another blow against the closed shop, which must soon be driven out of industrial life as a menace to freedom and progress.

Hydro Reduces Rates

WITH nearly every man ready to take full advantage of the "high cost of living" plea to increase the price of what he has to sell, the announcement of a reduction in rates by the Ontario Hydro-Electric Commission comes as a pleasant surprise. The greatest cut was given to Caledonia, where the price was decreased from $29.10 to $24.00 per horsepower, a drop of 21 per cent.

This agreeable action on the part of the Commissioners does not mean that they intend to save money by limiting construction. On the contrary, they announce that they will make extensions costing over $750,000, of which $500,000 will be spent on a new line from Niagara Falls to Dundas, and $100,000 on doubling the Dundas-London-St. Thomas circuit. An addition is being made to the huge transformer station at Niagara Falls which will increase its capacity to about 150,000 horsepower.

The ultimate effect of the cut will be a reduction of light and power rates to the consumers in the municipalities affected. The Western Ontario manufacturer, who is at present beset with the javelins of Workmen's Compensation, high taxes on improvements, scarcity of skilled labor and tightness of money, will hail with delight the new rates, which will cut down his operating cost.

The Hydro Commissioners will get the solid support of Ontario manufacturers in continuing their policy of giving good and improving service at low and decreasing rates.

"Average Earnings"

SUPPOSE a workman employed in an Ontario factory earns $600 per annum and that, by acting as a life insurance agent in the evenings, he doubles his income. In case he meets with an injury in the factory which disables him permanently, Sir William Meredith's Compensation Bill, prepared for the Ontario Government, would grant him 55 per cent. of his "average weekly earnings" for life. As his earnings would include his life insurance commission, the compensation which the manufacturer would have to pay would be reckoned on $1,200 instead of $600, according to section 39, subsection 3, of the proposed Act, which says: "Where the workman has entered into concurrent contracts of service with two or more employers under which he worked at one time for one of them and at another time for another of them, his average earnings shall be computed as if his earnings under all such contracts were earnings in the employment of the employer for whom he was working at the time of the accident."

It is hard to believe that Sir William realized the possible application of this provision when he drafted it.

The Royal Bank Report

THE first annual statement of the Royal Bank since it absorbed the Traders Bank shows that the amalgamation has produced excellent results. The net profits for the year amounted to $2,142,100.22, equivalent to slightly over 18½ per cent. on the capital stock. At the end of the previous year there stood at the balance of profit and loss $610,219.36, and this, added to the profits of the year, made an amount available for distribution of $2,752,-319.58. Of this amount dividends at the rate of 12 per cent. per annum took $1,387,200; $100,000 was applied to pension fund; $250,000 written off bank premises, leaving an amount of $1,015,119 to be carried forward to the balance of profit and loss account.

What Protection Has Done for Germany

IN these days, when onslaughts are being made upon tariffs, it is advisable to consider what Protection has done for Germany. We reproduce an extract from the recent report of Consul-General Francis P. Koenig, of the consular district of Düsseldorf, which includes Westphalia and the Rhenish provinces, also the cities of Cologne, Düsseldorf, Duisburg, Elberfeld, Essen and Dortmund, and is populated by eleven millions of people. In the Düsseldorf district most of the great German industries are represented.

"Thirty years ago Germany set up her protectionist tariff," says Consul-General Koenig, "and it is an incontestable fact that during these last thirty years Germany's progress has been nothing short of marvellous. It is, however, an open question whether it is entirely due to her protectionist policy; there are a good number of Germans who maintain that her progress would have been just as great without a protective tariff. In 1880, Prussia's coal production amounted to 42,000,000 tons; in 1912 it increased to 167,000,000 tons, which means a fourfold increase. Germany's pig-iron production in 1880 amounted to 2,700,000 tons and in 1910 to 14,800,000 tons, a five-fold increase; her pig iron production in 1912 amounted to 17,852,000 tons—a six-fold increase since 1880. It must be remembered that on an average the freights to be reckoned in the production of pig-iron amount to 30 per cent. of the cost of production in Germany, as against 10 per cent. of the same cost in the United Kingdom. Germany's imports and exports in 1880 amounted to £300,000,000, as against £950,000,000 in 1912. Germany imports £150,000,000 worth of foodstuffs, whereas the United Kingdom imports nearly twice as much food, in spite of Germany having a 50 per cent. larger population. Germany is, therefore, from an agricultural point of view, far more self-supporting as regards foodstuffs. It is a noteworthy fact that Germany's cereal harvests have increased from 14,700,000 tons in 1880 to 25,100,000 tons in 1910, mainly owing to more scientific and better farming. Wherever one turns, one sees higher incomes and increased prosperity."

The Consul-General, being a Government official, steers clear of controversy by saying that "there are a good

number of Germans who maintain that her progress would have been just as great without a protective tariff." It is quite clear, however, that the "good number of Germans" are not in the majority, or they would abandon Protection and establish Free Trade. In commenting upon the report, the *Chemical Trade Journal*, London, England, says:

"Such progress as this must be due to some cause, and it is not due to any natural advantages enjoyed by Germany, which are inferior to those of the United Kingdom."

Protection has helped to change Germany from a group of fighting little kingdoms into a great centralized commercial empire, whose citizens have become the technical and industrial teachers of the world.

The Bank of Commerce Report.

A VERY successful financial year has just been completed by the Canadian Bank of Commerce, as shown by the annual report. The net profits amounted to $2,992,951, which were appropriated as follows:—Dividends, $1,500,000; bonuses, $300,000; written off premises, $500,000; pension fund, $80,000; rest account, $1,000,000; carried forward, $384,000. The regular dividend of 10 per cent. per annum was paid. A balance of $28,884,529 is shown in the profit and loss account, and the total assets have reached the huge sum of $260,030,720.

Compensation Makes Hypochondriacs

ONE of the evils which may result from a system of Workmen's Compensation is the danger that good workmen may be encouraged to become hypochondriacs. Imagination has a powerful influence over the body, and it is inevitable that a workman's imagination may be unduly stimulated if he knows that he will be paid a large part of his wages during illness. It is a fact that new ailments develop in manufacturing countries where systems of compensation are in operation. The chief of these is the acquired desire to remain an invalid after an accident or illness. In the majority of cases the unfortunates are absolved from a charge of duplicity. They believe that they are worse than they are. When this perverted imagination co-operates with the human disinclination to work, it goes a long way towards incapacitating men for long periods and making them believe that they should be compensated for every accident, however slight. In discussing this phase of the question the *Monetary Times* says:

"Germany has had about thirty years' experience of compulsory workmen's compensation insurance. Ontario is about to begin. At present, in Germany, there are some 14,000,000 people insured against sickness, 25,000,000 against accident and about 16,000,000 against old age and invalidism. Since the passing of the insurance laws some nine milliards of marks ($2,250,000,000) have been expended in payments, with a regular annual average in recent years of 750,000,000 marks ($1,850,000). The number of individuals to whom these payments are made amounts to about 100,000,000 and every year adds 8,000,000. These are remarkable figures.

"It is not difficult to imagine how a mania for insurance pay could take deep root among the working classes, as similar manias have taken root among other classes. The worst possible thing for a young country such as Canada is the introduction of paternalistic laws which tend to undermine the individual spirit of enterprise and responsibility, a quality of which Canada has boasted much."

Victory for Canadian Stockmen

WE salute Glencarnock Victor II., the mighty steer which won the grand championship at the International Live Stock Show of Chicago in December. He is owned by Mr. J. D. McGregor, of Brandon. With the daring and success displayed by his ancestors in lifting cattle from the Lowland plains, Mr. McGregor sent forth Glencarnock to snatch the prizes from the South.

At the same show, twenty Saskatchewan horses carried off twenty prizes, and two Ontario farmers won all the prizes awarded for Leicester sheep.

These animals were bred in Canada and fed in Canada. Their remarkable records show that no country can excel Canada in stock raising.

As we realize the significance of the success of Canadians at the Chicago show, it is gratifying to notice that the Legislature of Saskatchewan is considering at present two bills: one to provide $500,000 for the purchase and sale of pure bred stock; the other to raise $1,000,000 to bring domestic and farm help to the Province and to encourage mixed farming.

The Union Bank Report.

THE net profits of the Union Bank for the current year, as shown in its annual report, amounted to $825,579, over 15 per cent. on the paid-up capital. This was applied as follows:—Dividends, regular at 8 per cent., $400,000; bonus of one per cent., $50,000; rest account, $100,000; depreciation reserve, $125,000; written off bank premises, $50,000; pension fund, $10,000; carried forward, $90,579. The total assets of the bank are placed at $80,766,532, as against $69,400,000 last year. During the year deposits increased by $8,952,000, which is interesting in view of the financial stringency.

In the course of his address the President, Mr. John Galt, in speaking optimistically of the future, said: "The capital available for investment in new fixed forms such as railways, canals, city and farm buildings, etc., is, of course, limited. Of late years it has been pretty well absorbed. It is clear that when the supply is exhausted, or when causes operate to check it, expenditure in fixed forms must be curtailed. This point seems to have been reached, and Canada will have to mark time until confidence is restored and until the older countries, from whom we draw much of our capital, are in a position to again invest their savings and profits. The natural resources of Canada are so vast and so attractive, that the capital necessary for their development will, undoubtedly, be forthcoming when financial conditions become more settled."

BALLADE OF A MOSS-GROWN SYMBOL.

Again We Observe, in a Cartoon in The Masses, the Dear Old Paper Cap that Labor Wears.

I much esteem the rubber-stamp cartoons,
Symbols of paleozoic pedigree—
Age-battered emblems that for moons and moons
Have roused my righteous wrath or gurgling glee;
Stern Justice with her Scales and Snickersnee;
The Horn of Plenty stuffed with plums and pears
And hothouse grapes, in wild luxuriancy;
The dear old Paper Cap that Labor wears !

Dear to my heart as dim remembered runes
Of childhood twittered from a nurse's knee,
Are Uncle Sam's starred Hat and Pantaloons,
The Ship of State, the Snake of Anarchy,
The smoking stacks of good old Industry,
The tyrant Trust that nought and no one spares;—
All these I cherish—one especially,
The dear old Paper Cap that Labor wears !

Fresh as the dew upon a peck of prunes,
Green as Joe Miller's jocund jeux d'esprit—
So fresh, so green those mossy old lampoons
That never fail to make a hit with me:
The Dinner Pail, the Presidential Bee,
Oblivion's Chasm, to which the dead one fares;
And—rooted like an oak in memory—
The dear old Paper Cap that Labor wears !

Immortal lid ! I lift my own to thee !
Tenacious lid, that Time, nor dents nor tears !
Symbol encrusted with antiquity !
The dear old Paper Cap that Labor wears !

—*Chicago Tribune.*

NINE RULES FOR BUSINESS GIVERS.

Prepared for The Merchants' Association by the Bureau of Advice and Information of the Charity Organization Society of New York.

For the assistance of business men who do not wish to contribute to unworthy organizations, the following nine suggestions have been prepared:

1. Don't give to a collector just to get rid of him. Frauds flourish upon the folly of people who do this.

2. Don't give money to a solicitor who cannot show proper credentials. He should have a letter signed by an officer of the organization he represents and written upon its official stationery.

3. The way to be certain that your contribution will go to the cause in which you are interested is to mail your check to the treasurer—not to give it to a solicitor.

4. Don't subscribe to organizations which give only a post office box number as their address.

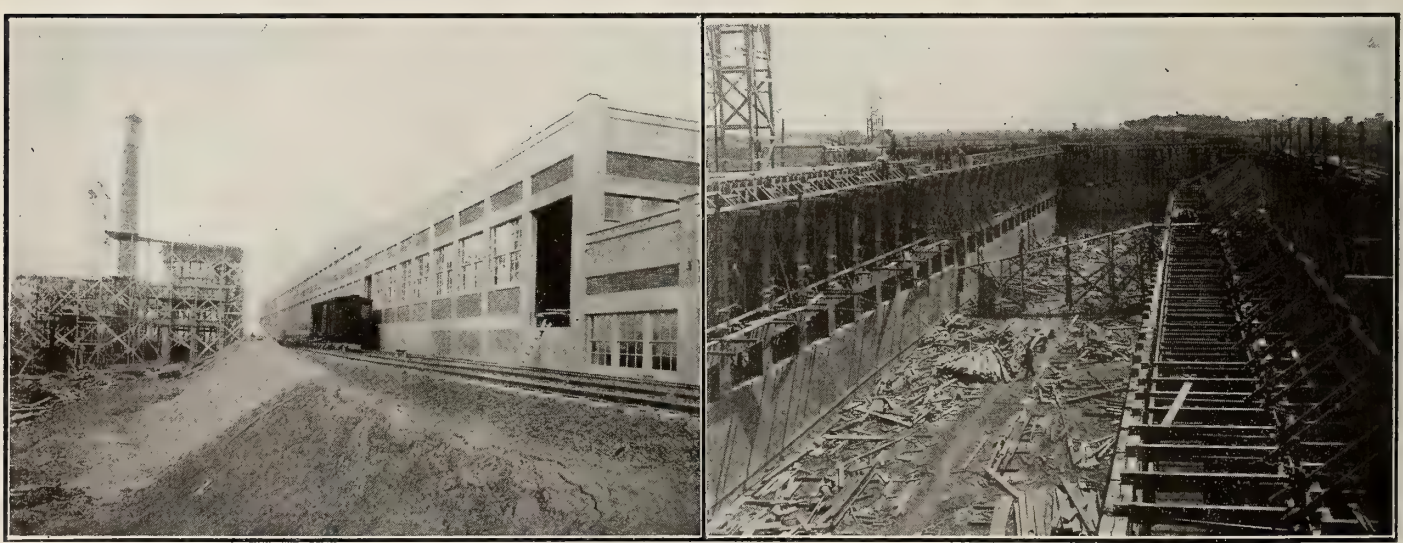
5. Beware of one-man organizations. Every reputable charity agency should have a board of managers to direct its work and oversee its finances.

6. Don't give to any organization which does not have its accounts satisfactorily audited yearly and which is not willing to make public annually a financial statement.

7. The fact that a woman appeals to you for a contribution does not necessarily imply that the charity in which she is interested is worthy. Fraudulent charitable enterprises are quite as often conducted by women as by men.

8. Many appeals for money enlarge upon the sufferings of the poor. Because there is misery in New York is not proof of an agency's efficiency. Find out what the society in question is doing to stop this suffering, and give accordingly.

9. Always investigate before you subscribe. There is no disgrace in giving wisely.



Plant of the Beaver Companies, Welland, Ont., Nearing Completion

The illustration on the right shows the huge plant of the Beaver Companies at Thorold, Ontario, as it was when half completed. That on the left shows it nearing completion. There will be five buildings which, equipped, represent a half million dollar investment. The company has made arrangements for 2,500 horse power electricity from Niagara Falls day and night, for thirty years, but will no doubt require 5,000 horse power, which, with the 500 horse power generated in their own boilers, will give a 5,500 h.p. service. When the work was begun at Thorold it was necessary for the Beaver Companies to provide housing for laborers, and comfortable quarters for skilled workmen, and to establish a commissary department. This was done—the carpenters, iron workers, and other skilled laborers now have comfortable quarters, and the unskilled laborers have houses set apart for them.

STORAGE AND PRESERVATION OF STOCK

Methods of Scrapping and Reducing Inactive Stock

By R. W. HEAFIELD

IT is hoped that the information contained in the following short article will be of benefit and interest to manufacturing concerns in Canada, and should be particularly so to storekeepers and stockmen generally in that business.

These methods have been adopted and successfully worked by the author, and have been found to be practical. They have been and will be in every case, where adopted, a source of great benefit at the stocktaking period, a great amount of labor and time being saved.

Particular attention should be given to the string of inflammable materials.

The greatest care should be taken in the storing of perishable goods.

Heavy stock, such as brass, copper, iron, steel, etc., which involve considerable labor, should be stored so that only the short used lengths have to be weighed at stock-taking or counted, as the case may be. Articles mentioned in the list following are to be kept in bundles, packages, bags, etc., containing the quantities most suitable, and each package or bag should have marked on it the number or weight contained therein.

It is well for arrangements for such goods to be supplied in similar quantities. When, however, this cannot be done and they are not delivered in convenient form for storing away, they should be put up in bundles, etc., before being put away. They should be stored on shelves ready for immediate use, so that the quantity can be ascertained at a glance without either moving or weighing them.

Description of Stores.	Units of Packages.
Bright bolts and screws	25, 50, 100, according to size.
Bright nuts for screws	25, 50, 100, according to size.
Bolts and screws (iron)	If by weight, 50 or 100 lbs.
Nuts for screws (iron)	If by weight, 50 or 100 lbs.
Rivets (iron) all sizes	Bags of 5, 10, 15, 20, 50 or 100 lbs.
Antimony	In bars of uniform weight.
Tin in bars	Bundles of 10 or 20 lbs.
Solder	Bundles of 10 or 20 lbs.
Cocks (brass, bib or stop)	In packages of ½ or ¼ dozen.
Nails, all sizes	In bags of 1 cwt., or if issued in small quantities in packets of 5, 10 or 20 lbs.
Unions (brass and brass fittings of all descriptions)	Packets of 1 dozen or 10 and 20 each.
Knives	Packets of 1 dozen.
Acid (muriatic)	In carboys or bottles.
Acid (nitric)	

It will be found that nearly everything is applicable to this method, and if generally adopted will be of great benefit at the stock-taking period, saving a vast amount of labor.

Timber.

All timber should receive the greatest care in stocking, and should be so built up that the contents of the stock, together with the size, can be plainly shown on the ends, and the ends should be kept square. Planks and boards of all kinds should be kept off the ground with skids or battens between each layer to admit a free passage of air. The ground supports of all timber liable to be attacked by ants or insects of any kind should be coated with a preservative.

Frequent examination for dry rot should be made by sounding logs, etc., and attention should be called to any timber which shows deterioration in any form from insects or dry rot.

All timber should be screened from the weather as much as possible, and care should be taken to stock in such a manner as to permit of the oldest material being used before that more recently purchased. Deal and planks of all kinds should be stocked with the hearts downwards, particularly should this be the case when stored in the open.

Metal Articles and Raw Metals.

All kinds of iron and steel should be kept under covers, and bright iron and steel, and all bright steel articles, should be coated (when necessary to keep in stock for any length of time) with a mixture composed of three parts of copse varnish and one part of spirits of turpentine, which will be found effective and lasting.

Copper and zinc ingots should be stocked in lots in equal weights (say 2-ton lots), and should be so stocked that they may be easily seen and verified. Each lot should have a tally attached showing the weight, date of receipt, supplier (and if preferred the cost, invoiced price).

Steel wire, ropes and cables should be kept free from rust, and should be oiled when necessary.

Miscellaneous.

Catgut and all articles made from untanned hides should be kept suspended from nails, or stowed otherwise so as to preserve them from the ravages of rats and mice.

Horses (leather) should be coated about every three months with a mixture composed of two parts neatsfoot oil and one part of yellow tallow to keep them soft and pliable.

Each consignment of coal or coke should be stacked separately, and bituminous coal should never be placed in stacks of more than seven feet high or eight feet at the most. All coal and coke stacks should be at least twenty feet apart, and should be arranged so that free ventilation can take place between them. Care should be taken to get a constant current of air through coal stocked under cover. It is a good plan to have iron tubes placed in the middle of stacks of coal (closed at the bottom end), and thermometers should be lowered into them every two or three days so that any sign of overheating can be observed, in which case the coal should be removed and exposed to the air.

A ton of hard coal would require a space of 40 cubic feet; while a ton of soft coal would require a space of 43 cubit feet.

Cordage deterioration by age, and the efforts of the stockman should be directed to using up all cordage of old date in preference to new. By doing this he will achieve a great saving to a company using much of this material.

Cordage should be stacked according to description and size and a tally attached to each size. When only a portion of a coil of rope is used the tally should be kept on the part remaining in stock. Canvas, muslin and all textile goods should be kept in as dry a place as possible.

Electro-plated articles should be stored in dry cupboards, and the stock should be constantly examined to make sure that deterioration of new articles is not taking place, as the acids used in the plating process often cause them to.

All oils, etc., should be stored, as far as possible to do so, in tanks.

Acids should be kept as far away as possible from any article of an inflammable nature, or from other stock that would be damaged thereby. Salammoniac, soda and potash should always be stored off the ground and in a dry place.

To be Kept from Fire.

The following articles are of a very inflammable nature, and should be stored in a place set apart for the purpose:—

Varnish spirit (brown), varnish spirit (white), Brunswick black, copal varnish (quick drying), mastic varnish, black Japan, gold size Japan, sealing wax, naphtha (highly rectified), mineral oils (with flash point from 75° to 150° Fah.), spirits of wine, spirits of turpentine, methylated spirits, lacquers (of all kinds), French polish (all kinds), white enamel, liquid paints (all kinds).

Waste and oily materials of all kinds which are capable of generating heat should never be stored in close proximity to any of the above articles, otherwise spontaneous ignition is likely to result. Leather hides, tanned and untanned, should be open to a current of air, and should be stored off the floor.

Cement should be stored in a dry place. Quicklime should be kept in tanks free from air.

India-rubber and gutta-percha goods should be stored in a dry place, and in as dark a place as possible. Rubber sheets should be laid flat. Rubber tubing should be carefully coiled for preservation, otherwise it is quickly and easily ruined.

Scrapping of Obsolete Stock.

This is a branch of storekeeping that everywhere is always a source of great trouble, and causes endless work to the head storekeeper.

It will be recognized that there are two items under this heading. I have coupled them together because one is so nearly related to the other. Obsolete stock is always inactive, but that is not to say that inactive stock is always obsolete, that is to say they are not composed entirely of obsolete material.

Taking obsolete material first. As soon as we are satisfied that a thing becomes obsolete it should be scrapped with as little delay as possible and the scrap material used to the best possible advantage. The loss involved, due to the difference between the value of the scrap material and the manufactured article, is in many, many cases very small. Forgings can usually be used up to advantage in the smithy. The value of scrap copper and brass is very little less than the manufactured product. There is no doubt that the greatest loss occurs in regard to iron and steel castings, but there is nothing to be gained in carrying these year after year as an asset, for there comes the item of frequent handling, etc., etc., and no possible prospect of using them. The best thing to be done with them is to realize the best possible price, and even if necessary to sell to local dealers.

The Inactive Stock.

So much then for obsolete stock. This is not a very difficult problem. The real and greater difficulty is the inactive stock. Every storekeeper, I believe, really thinks the best remedy is prevention. A certain amount of inactive stock there is bound to be. As, for instance, all material stocked for emergency.

If when ordering material the last order number is quoted it will give the general storekeeper an idea as to the rate at which stock is moving, and he orders accordingly. These are helps to keep out inactive stock.

A list should be made out monthly of inactive stock, a copy of which should be sent to every foreman.

Consult frequently and most freely with the foremen of all departments likely to be able to use both inactive and surplus stock. It is surprising what a lot a storekeeper can do in this respect. It will be found that by a very slight alteration in plans they are able to bring in certain material they know to be otherwise inactive.

A storekeeper should do with his inactive and surplus material the same as a tradesman does with his stock, advertise, advertise, and advertise again.

A general storekeeper should never scrap anything outside general stock with which he is not thoroughly familiar.

Everything requiring technical skill in determining its worth should be held until the sanction of the chief engineer (or some person assigned by him for the purpose) has been given to scrap.

When an article is scrapped a voucher should be made out by stores giving the actual price paid, and underneath the price taken into stock at as scrap. (A working number should be allocated to scrap material, preferably two, one for iron and steel and one for brass and copper). These numbers could run for twelve months. When receiving scrap material from the shops it should be carefully weighed and the voucher correctly priced, the stockmen being instructed as to the price allowed for the various materials monthly. A good plan is to receive brass and copper borings and turnings into stock at one cent a pound less than market value as scrap, and to issue out at par. This ensures the stores not losing on the resultant handling.

There is no doubt that "scrapping" pays when judiciously carried out.

COST OF LIVING.

The Department of Labor index number of wholesale prices stood at 138.4 for November, as compared with 136.8 in October and 136.6 in November, 1912. The increase was due to advances in the prices of grains and fodders, cattle, beef, sheep, dairy products (especially eggs), and fresh vegetables. These increases, however, were somewhat offset by declines in flour, glucose, honey, raw cotton and silk, coke, iron pipe, linseed oil, resin, and raw rubber. The level was higher than a year ago in animals and meats, dairy products, textiles, hides, leathers, boots and shoes, lumber, miscellaneous building materials, furniture and crockery. A lower level than last year appeared in grains and fodders, fish and paints and oils. Fruits and vegetables were slightly higher, but miscellaneous groceries were somewhat lower than last year. The feature of the month in retail prices was the advance in eggs, but the movement was also upward in butter, potatoes, coal, milk and prunes. Beef, veal and mutton advanced in some localities, but fresh pork and lard declined in a number of Canadian cities.

OTTAWA TAKES HYDRO.

The Ontario Hydro-Electric Power Commission signed a contract in December to supply 20,000 horsepower to the Ottawa & Hull Electric Co. This contract is to supersede an old agreement and will run for thirty-three years in periods of thirteen, ten, and ten years, terminable by the Commission at any time on two years' notice. The price under the old contract was $15 per horsepower. The new price is $14, with a graduated reduction to $11, on the following scale:—

Up to 5,000 h.p., $14; 8,000 h.p., $13.50; 10,000 h.p., $13; 12,000 h.p., $12.50; 14,000 h.p., $12; 16,000 h.p., $11.50; 18,000 h.p., $11.

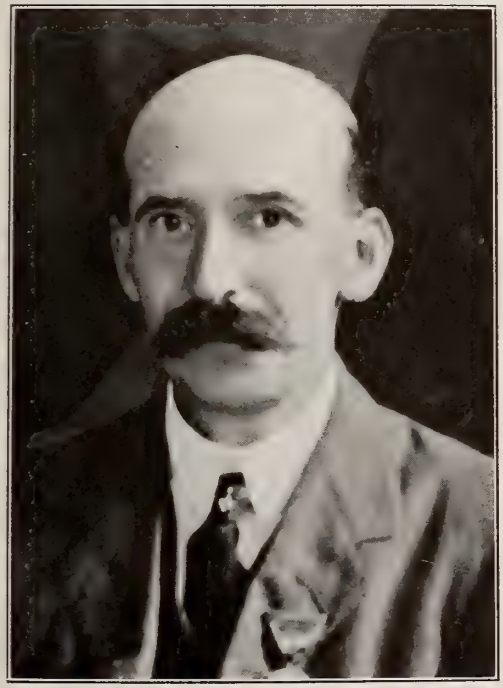
HON. W. T. WHITE PREACHES OPTIMISM TO HAMILTON MANUFACTURERS

"WHAT is the future? There is no guessing so far as I am concerned. There may be some ebbs and flows, but your nine millions must become twenty, thirty, forty and fifty, just as sure as we are here to-night."

This was the prophecy in regard to the future of Canada, which Honorable W. T. White, Minister of Finance, delivered at a banquet of the Hamilton Branch of the Canadian Manufacturers Association in December.

The keynote of Mr. White's speech was optimism in regard to the future, a welcome note to Canadian manufacturers. The financial stringency, he thought, will soon be over and the wheels of industry will revolve again with their former steadiness. He defended the Dominion policy of borrowing money in large sums for capital expenditures, which were necessary to provide a young country with commercial machinery.

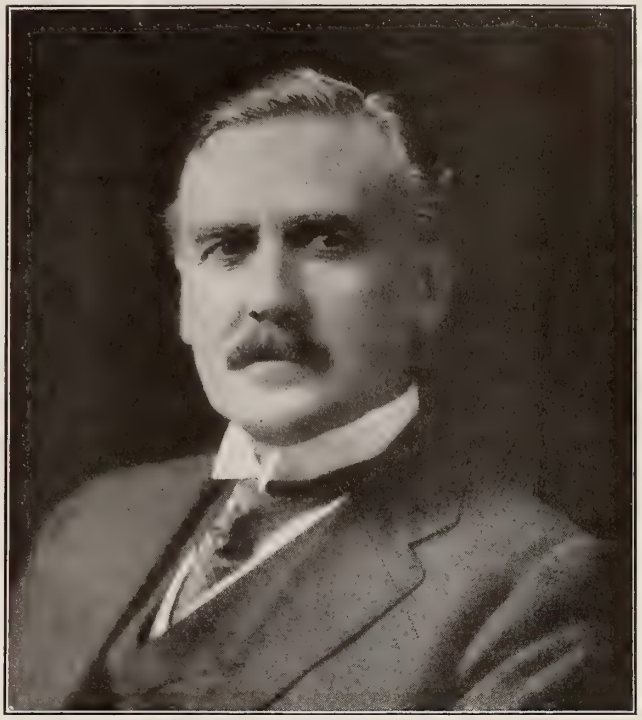
"Canada is a borrowing country," said Mr. White, "and is bound to be for many years to come. How could it be otherwise? Last year and the year before articles were written abroad with regard to the great discrepancy in our imports and exports. Canada is in such a sound position that it cannot be questioned. Our imports and exports are what you might expect at this period of our history. Canada has been borrowing millions, but that does not come in in the form of gold. International balances are settled by commodities and not in gold; and the excess of imports is easily accounted for by the money we borrow and the money brought in by immigrants. The difference between the imports and exports corresponds to a large degree with those borrowings which came into the country, to be devoted to development purposes. If Canada could equal her imports by her exports it is obvious she need not borrow at all. We borrow money



MR. H. J. WADDIE
Chairman Hamilton Branch, C.M.A.

for what is called capital undertakings. It would not be fair to saddle on the people of to-day the immense undertakings and benefits which will endure for generations to come. Therefore, Canada will be a borrower in the money market for many years to come.

"There is the Trans-continental railway, which will cost from 180 to 200 millions. Canada has paid more than half of



HON. W. T. WHITE, MINISTER OF FINANCE
The Apostle of Optimism

it, and when that great line is finished only a small portion will represent borrowed money. It has been partly paid out of current revenue. Can we expect to pay for the Welland Canal out of current revenue? All these things are objects for borrowing. Every year out of what we call current revenue this Dominion pays millions of dollars that might be charged to capital account. Two years ago out of current revenues we paid all the civil list, all the cost of construction of these minor undertakings; and in addition we paid the entire cost of all the capital undertakings out of the revenue of the country. The next year we did the same and a surplus remained of twenty-five millions. Every dollar of that money has been spent in the construction of the Grand Trunk Pacific Railway Company to Prince Rupert, so it has all been spent in the Dominion of Canada. This year we shall pay all our current expenses, and we shall pay a substantial part of our capital charges. We shall have no hesitation in borrowing within reasonable bounds. Extravagance is always to be deprecated. Parsimony is also to be deprecated. The sensible, sound, moderate course is the one to adopt. We have our Atlantic and Pacific coasts and inland harbors to develop and improve—it is part of the national plant of Canada. In giving you this plant what we are doing is to make it easier for the people of Canada to transact business with the other parts of the world. Three years ago the total trade of Canada was 750 millions; two years ago it had reached 850 millions; and last year it reached the high water mark—1,000 millions of dollars."

Mr. H. J. Waddie, Chairman of the Hamilton Branch, presided, and in the course of his brief address paid tribute to the Canadian Manufacturers Association, which, he claimed, keeps our captains of industry in amicable co-operation. The



MR. C. B. GORDON

President, C.M.A., who Criticized Adversely the Proposed Ontario Workmen's Compensation Act

banquet was honored by the presence of Mr. C. B. Gordon, President of the Canadian Manufacturers Association. Speaking of the National Policy, Mr. Gordon urged its continuance in letter and spirit. He also criticized the Workmen's Compensation Bill now before the Ontario Government, on the ground that its impracticability would debar it from receiving the support of the manufacturers.

The banquet was a great success, and was a fitting conclusion to a year of astonishing industrial development in the city. Those who visited the Centennial received an object lesson of the city's progress, which is emphasized by the record of the year's plant building and increase in manufacturers' output.

Among those present were Hon. Samuel Barker, M.P., Senator Smith, Allan Studholme, M.P.P., R. Hobson, Cyrus Birge and Dr. Thomas O'Hagan.

The Abitibi Pulp & Paper Co., Ltd., of Iroquois, Ont., are building a pulp and paper mill costing $1,500,000.

An official high in the Company says: "You largely can judge a superintendent's or a foreman's efficiency by the results of his accident prevention work. If he is unable to perfect an organization which will reduce accidents to a minimum, then you may be sure he is not 'up to the mark' in his other work. He may have been able apparently to fill his position satisfactorily, but his limitations are bound to be found out sooner or later."—*Illinois Steel Company.*

GERMAN IRON MANUFACTURERS MAKE STILL GREATER CUTS IN THE EXPORT PRICES OF THEIR PRODUCTS.

The current issue of the British *Board of Trade Journal* states that the following information has been received at the Board of Trade from a reliable source:

Although the industrial boom in Germany shows signs of weakening, yet the various leading syndicates in the coal and iron industries are making a determined stand to maintain steady prices at home. In modern iron works the various branches are so closely interdependent that is is no longer possible to close down a blast furnace without affecting the working of other parts of the concern, or even of neighboring concerns, by cutting off the supply of top-gas, which is needed as power. As a result the iron works are forced to produce an oversupply of their base products, for which new markets must be found at any possible price, provided they are outside Germany. There foreign sales are facilitated by export bounties, of which the following are at present in operation:

1. The Coal Syndicate allows 1.50 marks per metric ton of fuel purchased from the syndicate, and proved to have been used for the production of iron goods actually exported. This bounty came into operation on October 1.

2. The Raw Iron Syndicate grants a bounty on raw iron purchased from it and used to manufacture articles for export. This bounty, together with the Coal Syndicate's bounty, amounts to 4.50 marks per metric ton.

3. The Steel Workers' Union used to allow a bounty of 10 marks per metric ton on half-finished goods exported, but from June 1, 1913, this bounty was increased to 15 marks. The purchase price of the half-finished material to be used for the manufacture of articles for export is at the same time reduced by a further 5 marks per metric ton.

4. The Rolled Wire Syndicate has increased its export bounties so that they now amount to 11.50 marks per metric ton of raw material used in the case of iron wire and wire goods made from rolled wire, and to 16.50 marke for material used for wire tacks. The purchase price of the raw material used for making goods for export is also reduced by 5 marks per metric ton.

All these bounties are paid out by the central bureau in Dusseldorf known as the "Aberchnungstelle fur die Ausfuhrvergutung."

THE U. S. CURRENCY BILL.

The main features of the new currency bill which has just passed the United States Senate are summed up as follows by the New York *Journal of Commerce*:

The issue of currency, guaranteed by the Government, based upon notes and bills representing commercial transactions and backed by a gold reserve. The new currency is expected to contract and expand to meet the varied demands of trade.

The concentration of the bank reserves of the country in regional institutions capitalized by the banks of the country and controlled by directors elected by the banks.

The creation of a market for the negotiable commercial paper which forms the bulk of the assets of the banks, where, in times of stress, those assets may be easily and without loss transformed into cash.

The establishment of from eight to twelve great regional banks throughout the country, which will issue currency, rediscount paper and centralize and mobilize the reserves of the local banks.

The creation of a Federal reserve board of seven members appointed by the President, with final powers of control and supervision over the entire system.

THE SOUTH SHORE OF NOVA SCOTIA

By J. R. MACLEOD

IT is only recently that railway facilities have been given to the South Shore, or south-western part of Nova Scotia, and consequently industrial life languished. The fishing and lumbering industries, of course, have always been carried on with more or less vigor. They were not hampered by the lack of rail communication. In the past, as to-day, the export of fish and lumber depended upon ships for transportation purposes.

Gold mining, also, played an important part in the life of this part of the province. In manufacturing, the South Shore is now progressing and hopes to excel.

One of the most recent and most successful industries is the manufacture of pulp and paper. In this, the Macleod Pulp Company, with mills at Milton, on the river Mersey, are very active, as they control the best hydraulic power source in the province. Their product finds a ready market in the United Kingdom, and, as the mills are situated close to tide water, shipping facilities are excellent. During the past few years the Company have endeavored, and with considerable success, to turn the pulp into the finished product.

Back of the Macleod Company's mills are the great lakes of Rossignol and other bodies of water only known up to recent years for their splendid sporting possibilities. The Company's water-shed embraces over seven hundred square miles and is fed by four counties. It is estimated that 50,000 horse power can be generated here.

At New Germany, Harmony, Charlestown and Clyde there are other pulp mills which make large shipments to England and the United States.

Lumber Markets.

The markets for lumber are the United Kingdom, United States, South America and the West Indies. Shipments last year from South Shore ports were:

Shelburne	1,267,000
Yarmouth	16,814,000
Liverpool	6,050,000
Lunenburg	2,628,534
Bridgewater	35,000,000

The reason that Bridgewater leads is that the properties of the Davidson Lumbering Company were the only ones worked to any appreciable extent during the year, many of the large tracts of lumber remaining untouched on account of the uncertainty of the market and the high freights ruling. Considerable lumber from this part of the country finds its way to the American market, and the removal of the duties by the American Government cannot but have a beneficial influence on the future of the business. Lunenburg also participated to a large extent in the pulp wood industry, no less than 36,000 cords being produced during the year.

Deep-Sea Fishing.

The South Shore is principally noted for its deep sea fisheries, and in this respect Lunenburg excels. It is a successful rival to Gloucester. To-day it has one hundred and twenty-five vessels, averaging 100 tons each, engaged in the industry and giving employment to an army of men. The total catch last year was 216,450 quintals of cured fish. As the price averaged over $6.50 per quintal, it will be seen that this is a great source of wealth to the people.

Lockeport, another enterprising fishing town, has a large cold storage plant, costing $125,000.

The export of live lobsters to the United States is another great source of revenue to the South Shore, giving employment to the fishermen during what otherwise would be a season of idleness.

The fresh fish industry is assuming large proportions, and as the market is largely in the United States, the new American tariff will probably give it a great impetus. Boston is one of the chief markets, and as such fish as lobsters and mackerel can be put down there in twenty-four hours, the demand is not likely to fall off. This branch of the fishing industry has proved a boon to the shore fishermen, who sell their catch as soon as landed for cash, thus saving the trouble and expense of curing and storing. Now that the South Shore has been connected with Halifax by rail, the markets at Montreal, Ottawa and Toronto can be reached. The demand for fresh fish in these large Canadian centres is developing rapidly, and with the improvement of transportation facilities, undoubtedly large quantities of fresh and cured fish will find their way into Western Canada.

Shipbuilding is carried on at Liverpool, Lunenburg and Shelburne, the vessels being mainly for the coasting and fishing trades. Boat building as an industry is fast developing, the South Shore boat builder being an expert at his trade. Since the introduction of the motor boat many of that kind have been built for the use of the fishermen and are found to be a great advance over the sail or row boat.

The towns have all their own particular industries and are stretching out for more. There is abundant room for the establishment of industries along the South Shore, and now that there is good rail communication with the rest of the province and Canada, there is no reason why this part of the country should not become better known and appreciated in the industrial world. It is close to the American markets; it has excellent water powers; it enjoys good harbors; and has the advantage of the cheapest and best method of transportation—by water; it is an excellent point from which to distribute to home and foreign markets, and its people are progressive, industrious and frugal.

Plans are now prepared for fertilizing plant of the Scottish-American Oil & Fertilizing Company at Prince Rupert, B.C.



BARRED BY THE MAILS.

—Montreal Telegraph.

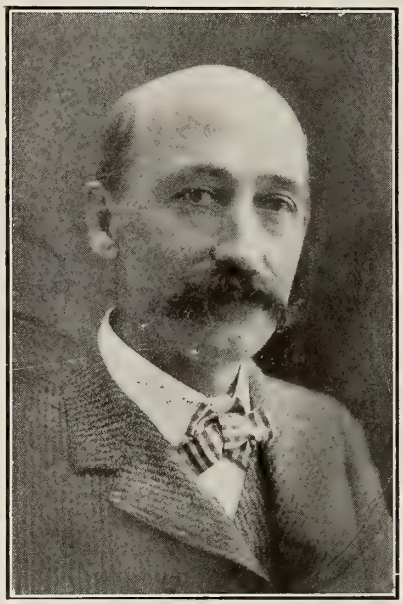
LIEUT.-COL. GARTSHORE

AT THE LAST MEETING of the Executive Council of the Canadian Manufacturers Association one of the items of business was the election of the new Executive Committee, which was created by the revised by-laws approved by the annual convention at Halifax in September. Two members were to be elected for a three-year term on this important committee, which is practically a board of directors for the Association. As the Association is generally in the thick of many fights, it was considered advisable to have the military profession strongly represented, and, consequently, two colonels were elected unanimously. One of them was Lieut.-Colonel William Moir Gartshore, of the McClary Manufacturing Company, London, Ontario.

Colonel Gartshore has been a fighter all his life. He wears the uniform of his country's militia and is well known and respected in military circles. For thirty-four years he has been a soldier in all ranks up to Brigade Commander. No parade soldier, either, for he served as major of the 7th Fusiliers in the North-West Rebellion. Horse and foot, too, as he commanded the 1st Hussars for eight years.

He has also fought his way against competitors and discouragement to a high place in commerce. Born in Dundas, Ontario, in 1853, the son of John Gartshore, a manufacturer, he grew up, one might say, in a factory. His father had established his plant in 1837 for the manufacture of engines, boilers and mill supplies, and it is interesting to learn that he furnished the first marine compound engine used on the Lakes, and also that he made an engine in 1860 for the Hamilton water works which is still running.

Colonel Gartshore was educated in Dundas and Galt, and started in business with the Toronto Wheel Foundry in 1870. From 1873 to 1876 he acted as Superintendent of the London Car Wheel Foundry, and then went to the McClary Manufacturing Company, where he has been since the latter date.



Lieut.-Col. Gartshore

There is another fight in which Colonel Gartshore has been active—the eternal fight against disease and poverty. Where there is a hospital there you may expect to find him. He is chairman of the Victoria Hospital Trust, London, and visits Victoria Hospital practically every day that he is in the city, spending much of his time there. Last year, by personal canvass, he raised a sum of ten thousand dollars to build an addition to the hospital, for the care of indigent patients suffering from tuberculosis, and other malignant diseases, such as cancer. Patients who would otherwise have to do with insufficient care in their own homes are now comfortably housed where they can be scientifically treated.

When he goes away to other cities, among all the urgent pressure of his business duties, he visits hospitals and studies their methods and appointments, the better to direct the management of that in London, where his influence for good has been wonderful.

He has also organized in connection with his own Company a welfare Department, one of the first, if not, indeed, the first, of its kind in this country. This looks after all sick employees and those who may be in need of financial assistance.

It must be understood, too, that in all this his interest in humanity is not the aloof sort that thinks of them in masses; he is interested in every case, and has always time and a desire to familiarize himself with the needs and troubles of individuals.

As President of the St. John's Ambulance Corps, he has devoted much time and study to first aid methods and the care of the injured.

Best of all, he is not a sad philanthropist, or one who wears on his face the doleful knowledge of the woes of men. Harry Lauder might apply to him the line from one of his songs, "I like a man, a jolly man." He is the knight of the shining face rather than the knight of the rueful countenance.

In the commercial and financial world he has much to do in discharging the duties attached to his offices of President of the London Industrial Bureau and Director of the Ontario Loan and Debenture Company.

Colonel Gartshore's record indicates that the Executive Committee will benefit from his presence.

WOOD AND INDUSTRY.

Twelve Hundred Ontario Manufacturers Require Wood.

The Forestry Branch, Ottawa, is now issuing a very comprehensive bulletin entitled, "The Wood-using Industries of Ontario." Leaving out of consideration the numerous industries engaged in the production of shingles, lath, ties, bridge-timber and rough lumber, there still remain at least thirty-eight different industries more or less dependent on wood for their operations, and it is significant that even the makers of wood substitutes require wood in the process of manufacturing such. The exhaustion of Ontario's wood-supplies, the depletion of which is already evident from the fact that over one-quarter of the total expenditure of $19,161,384 is paid for imported wood stock, would seriously cripple every Ontario industry.

Thirty-four different kinds of wood were used by these industries in the manufacture of everything in wooden produce from toys to threshing machines. Only eight of these woods had to be entirely obtained from outside sources, but, on the other hand, only six were entirely home-grown. However, almost 90 per cent. of the three principal species, namely, pine, spruce and maple, which represented over one-half the total quantity used, were purchased in Ontario.

The sash and door industry easily takes first place among the wood-using industries, using 31.3 per cent. of the 807,456,000 feet, board measure, of rough lumber annually worked up by the one thousand two hundred Ontario manufacturers reporting to the Forestry Branch. The importance of this one industry will be better understood by comparison with the pulp industry, which, although using 119,496,000 feet, board measure, of raw material, nevertheless was responsible for only 14.8 per cent. of the total consumption. The bulletin contains a detailed tabulation of each industry, and also valuable suggestions as to utilization of wood waste. In the appendix is a classified directory of Ontario wood-using manufacturers.

ASBESTOS MANUFACTURING COMPANY HOLDS ENTHUSIASTIC CONVENTION.

Beginning December 11th the Asbestos Manufacturing Co., Limited, of Montreal, held a two days' conference of salesmen and branch managers, at their Montreal offices, in the E. T. Bank Building.

The representatives were entertained by the company at luncheon on the 11th, and on the same afternoon an inspection trip was made to the large plant at Lachine. The convention was concluded by a dinner on the night of the 12th, which was presided over by the president, Mr. R. V. Mattison, Jr., of Montreal and Ambler.

The accompanying illustration shows the factory of John W. Peck and Co., Limited, Montreal, with the new addition, recently completed. The old building, erected in 1904, was 240 by 100 feet, and cost $125,000; the addition is 207 by 110 feet, and cost $200,000. Standard mill construction was used. The building is lighted by electricity generated by the company's plant. It is equipped with sprinklers supplied by three tanks on the roof, containing 60,000 gallons of water. An artesian well 600 feet deep furnishes drinking water.



FURTHER DECREASE IN LABOR DISPUTES.

According to a bulletin issued by the Department of Labor, there were only seven trade disputes in Canada during November, 1913, a favorable showing in comparison with October when there were nine in existence, and also with November, 1912, in which month twenty-five were recorded. There was, however, an increase in the number of working days lost over the previous month, the figures being 89,000 for November, 1913, and 70,700 during October. It is worthy of note that of the 89,000 working days lost during November, 67,500 were lost as a result of two disputes in British Columbia—coal miners on Vancouver Island and railroad construction laborers on the Pacific Great Eastern Railway. Three disputes were definitely settled during November, leaving four in existence at the end of the month, as compared with eleven at the end of November, 1912.

PRINCE EDWARD ISLAND FOX FARMS.

The progress of the Prince Edward Island fox farming industry is shown in the following figures:

Companies chartered in Prince Edward Island..	$14,930,900
Companies chartered elsewhere, estimated	500,000
Non-incorporated ranches, estimated	3,750,000
	$19,180,900

Two companies having their ranches in Prince Edward Island obtained charters in Maine and Nova Scotia respectively, the two having a capitalization of approximately $500,000.

It is announced that the contract for a new factory for the Canada Nail and Wire Company, Ltd., St. John, N.B., which is to be located at Coldbrook, near the Ford Motor Company's plant, three miles from the city, will be awarded as soon as the company has received its charter. The structure will probably be of brick, although concrete is also being considered. A new warehouse has just been completed to accommodate the traffic of the Red Cross Line steamer between St. John and New York. The Partington Pulp and Paper Company have considerably enlarged their plant this year, and are now completing a new warehouse and conveyor to carry the pulp from the mill to the warehouse, besides the railway siding they have also had constructed for their use.

TRANSPORTATION

By J. E. WALSH

THE Canadian Manufacturers' Transportation Association presented the following case at the conclusion of the Western Freight Rates Case before the Dominion Railway Board in December:—

Western Rates Case.

"In view of the fact that the evidence in this case is of the most comprehensive character and covers the interests of all parties represented, it is unnecessary for the Canadian Manufacturers Association to state its views, except in the most general way, as follows:—

"1. We believe that all freight rates should bear as lightly as possible upon the producer, and this especially because of the fact that all the country west of the great lakes is so situated geographically that of necessity there is a very long haul to the seaboard, and onward to the markets of the world. To give our farmers and other producers all that they are fairly entitled to means that their products must be carried at as low a charge as is consistent with the cost of the service.

"2. In order that manufacturers may be encouraged to locate in increasing numbers throughout the West, which is so obviously to the advantage of the producer of farm and other products, and which contributes so materially to the building up of centres of population, we believe that raw materials should likewise be carried at as low a charge as is consistent with the cost of the service. This, it will be readily seen, is in the interests of the railways and of the country generally.

"3. The railways must receive a reasonable return on the capital which they have actually invested. To compel them to carry the traffic at unremunerative rates would not only be unjust, but would immediately place an effectual check upon the extension of rail transportation, which the people at large are so anxious to encourage.

"In a word, therefore, we would be glad if your Board, having due regard to all the circumstances, and considering carefully the interests of all concerned, would readjust rates in a way that would conserve and promote the welfare of the Western producer, and carry that readjustment just as far as it would seem practicable to carry it consistent with the axiom that bona fide capital investment must always be afforded a reasonable return."

The following circular on the delivery of import shipments has been issued by the Canadian Pacific Railway:—

"Complaints are constantly received of delays in delivery of import shipments, and not infrequently of such goods going astray altogether. It has been found this, in a great measure, is due to the prevalent custom of insufficiently marking packages which sometimes simply bear some initials and numbers, or very often a destination mark such as 'Montreal' when the actual destination is Winnipeg or some other point; while in the case of iron material there are instances where no mark is shown at all.

"Under Railway Regulations in Canada and the United States domestic shipments are not accepted unless packages are fully addressed with the name of consignee and the destination in full, and there is no good reason why this rule should not be observed in respect to foreign shipments. If goods get astray which are marked with the name and address of the consignee the carrier has the means of locating same and effecting delivery; but without this information it is difficult, and sometimes impossible, to discover to whom the goods belong.

"Importers are respectfully requested to give this matter earnest attention, and insist upon shippers properly marking goods. It is in the interests of the shipping public as well as the carriers to bring about this reform."

The railway companies have just announced that they will continue until further advised the present cartage system east of Fort William and Port Arthur under their arrangement with their respective cartage companies.

From the outset it was hoped that some solution of the difficulty would be reached, and shippers and their representatives maintained negotiations to that end. It was felt that this was a matter to negotiate direct with the railways rather than to press for a ruling from the Board of Railway Commissioners, as the latter had previously announced that it did not have the power to order a continuance of the service and could only deal with the question of facilities. The outcome has fully justified the course followed.

A reduction in express charges for the handling of freight bills of lading and collection of moneys thereunder has been announced.

At present the express companies forward bills of lading for freight shipments, they, however, charging for the collection and return of the money under the bill of lading one per cent. By the order a change in the express classification has been made. Under this a new rule provides for the charge of one-eighth of one per cent., with a minimum of one per cent. on $100 on one company's line and one and one-half per cent. when carried by more than one company.

In practice the present and proposed rules will work out as follows:—

On $100—Present	$3 00
Proposed—One Line	1 00
" Two Line	1 50
On $300—Present	3 00
Proposed—One Line	1 00
" Two Line	1 50
On $500—Present	5 00
Proposed—One Line	1 00
" Two Line	1 50
On $1,000—Present	10 00
Proposed—One Line	1 25
" Two Line	1 50
On $2,000—Present	20 00
Proposed—One Line	2 50
" Two Line	2 50

INSVRANCE

A VIVID word-picture of the way in which the average Canadian city invites fire was drawn by Mr. Henry Lye, a fire adjuster, in a recent address to the Commercial Club of Vancouver:

"On one corner of two of the busiest business streets is a bank exposed in its rear by a lot of old wooden shacks, which may cause the destruction of the whole block.

"On another corner of the most beautiful streets is a collection of old lumber and refuse, which has long threatened the existence of two churches and a number of dwelling-houses. On a corner of another business street there has been allowed a wooden construction which menaces the safety of a number of comfortable dwellings, the roofs of which are below its level, yet the owners of these dwellings are without recourse against the authorities who issued the permit.

"On a corner of two residential streets, was put up a set of apartments, constructed of materials so flimsy as to surprise one that it stood erect until it was enclosed. Below the level of another street is a sawmill with its appurtenant buildings, its piles of lumber and firewood, all dominated by a cluster of wooden buildings, one of which is an old shack with sewer pipe for chimney. Alongside of some of these piles of lumber and firewood are a number of shacks with pipes through their roofs instead of brick chimneys, yet the mill owners are powerless. In many of the frame buildings the unobstructed spaces between the studs and between the joists constitute flues which conduct fires originating in basement or lower stories, all over the buildings.

"Nearly everywhere one goes, one sees smoking pipes, cigars, and still more incendiary cigarettes, the stubs of which, still burning, are thrown about regardless of consequences. Matches of the most dangerous description are used indiscriminately and thrown about everywhere inextinguished.

"Some of the large buildings have external iron so-called fire escapes. Try to imagine women and children attempting to escape by them on a cold wintry night, with a storm outside, fire and smoke bursting from the windows alongside. Contemplate the feeble attempts of old people and of invalids to reach or use these contrivances, or try them yourselves in broad daylight without any cause for hurry. Then you will insist that such buildings shall be divided by fireproof partitions, that hallways and stairways shall have metal doors with wired glass for the purpose of providing refuge from fire and smoke."

The State Fire Marshal of Indiana has issued a brief compilation of 123 cases of incendiarism examined by his office since May 10th, 1913. The motives of causes are given as follows:—

To defraud insurance companies	68
Malice	42
Pyromaniac	3
Careless or mischievous boys	9
Fire sale	1

These do not apply to all the losses in the state, but only to those taken up and investigated by the authorities. Of all the counties considered in these investigations Marion and Vigo have reported the largest number of incendiary fires. In proportion to population Orange County heads the list.

INSPECTIONS BY FIREMEN.

D. F. Cash, Director of Safety, Cincinnati.

During the past year we have made probably 50,000 inspections in Cincinnati—made by the firemen themselves, upon blanks that are furnished, that give information to anybody who wants to know anything about the condition of property, and, when the conditions call for it, their proper prevention. Just what effect it may have upon the loss, the fire waste, it is pretty difficult to say, but that it is in the right direction and has a natural tendency to reduce fire losses there can be no question. We believe it is in the interest of the firemen themselves to do that, because every time they are called it necessarily means hazard and risk of their lives and limbs and danger upon the streets, and many other considerations which would call for it.

At the Eastman Kodak Company, following the inauguration of the safety campaign, the number of accidents was reduced forty per cent. the first year. The campaign has cost the company considerable money, but they consider it one of the best investments they have ever made.

Sprinkler equipments are now carried in a number of boats plying on the Great Lakes. The cost of installation prevents equipments in many boats just as it does in the case of factories, but there is no doubt about its advisability.

Experience in fire protection engineering suggests three points to be kept in mind in planning a factory:—

1. There should be as little combustible material as possible used in its construction and equipment.

2. Each floor should be absolutely cut off from every other floor and each section from every other section, so that fire may not communicate.

3. Every part of the factory should be equipped with fire extinguishing apparatus.—*Franklin H. Wentworth.*



—Joliet Mixer.

TARIFF

By J. R. K. BRISTOL

MR. WATSON GRIFFIN sails from Halifax on the 2nd of January by the Royal Main Steam Packet Line for the British West Indies, where he goes as special Commissioner for the Canadian Department of Trade and Commerce to investigate general conditions with a view to encouraging the development of Canadian trade with those colonies. The Minister of Trade and Commerce will welcome suggestions from Canadian manufacturers for the promotion and extension of this intercolonial trade. Anyone desiring information about the West Indies is requested to write to the Commissioner of Commerce, Department of Trade and Commerce, Ottawa, who will keep in communication with Mr. Griffin. Any manufacturer who is meeting with difficulties in connection with his exports to the West Indies as well as any manufacturer who is desirous of engaging in this trade but has not yet done so, can get full light on any matter by taking the matter up with Mr. Griffin through the Commissioner of Commerce, Ottawa. In this connection the Tariff office of the Canadian Manufacturers Association is of course wholly at the disposal of the members interested in this trade. The West Indies colonies which grant a preference to Canadian products are: Trinidad, British Guiana, Barbados, St. Lucia, St. Vincent, Antigua, St. Kitts, Dominica, Montserrat and Grenada. The preference with certain exceptions is one-fifth the regular duty—provided that on flour the preference in favor of Canada shall not at any time be less than 12c. per 100 lbs.

It may be to the point to mention here that a drawback is obtainable of 99 per cent. of the duty paid on imported materials used in Canada in the manufacture of articles for export. The regulations governing payment of such drawback may be had by addressing a request therefor to the Commissioner of Customs, Ottawa, or to the Tariff Department of the C. M. A.

The Department of Customs has instructed Collectors of Customs, under date December 16th inst., that an Order-in-Council has been passed which contains the following provision:—

"Steamships of not less than two thousand tons gross tonnage each, of the following countries, namely, Norway, Sweden, Austro-Hungary and Japan, shall be admitted to the coasting trade of Canada in the carrying of goods and passengers coastwise between any port in the Province of Nova Scotia and any port in the Province of Quebec, and *vice versa*, on the same terms and conditions as are applicable to Canadian vessels, until the 31st day of December, 1914."

The Department of Customs and Excise, Pretoria, S.A., has issued the following statement for the information and guidance of those who prepare invoices covering shipments for entry into that colony under the Preferential Tariff rates:

"Owing to the great and increasing amount of work thrown on the Department by claims of refunds of the difference between the duties on foreign goods and those on the goods, produce or manufacture of the United Kingdom, or the reciprocating colonies, which differences have not been claimed at the time of entry of the goods, it is found necessary to warn importers that under the regulations the Certificate of Origin must be produced at the time of importation and due entry.

"Importers must, therefore, be warned that, on and after December 1st, 1913, unless the regulations are complied with, refunds will not be granted.

"The above therefore means that after December 1st, 1913, all goods for entry unless they have Certificates of Origin, must pay foreign duty, and a refund of the difference in duty paid will not be allowed should the certificate come the following week.

"Importers are therefore notified that they should instruct their suppliers to send Certificates of Origin with all goods of British manufacture at the time of shipment so as to obtain the three per cent. rebate on British-made goods."

Anyone desirous of obtaining a copy of the Certificate of Origin prescribed for use on invoices of goods intended for entry into South Africa under the Preferential Tariff, can do so by addressing the Tariff Department of the Canadian Manufacturers Association. Full particulars are also available here on the rates of duty under the South African Tariff.

Mr. Edgar Tripp, Canadian Commercial Agent, Trinidad, reports that Canadian soap is gradually making its way in that market. The size of the box (56 lbs.) is commented on as the popular size and the grade of soap compares favorably with other brands. To show that this market is well worth catering for, Mr. Tripp points out that the total imports in this commodity last year were 4,374,685 lbs. Of this amount the United Kingdom supplied 3,871,097 lbs., and Canada 344,882 lbs. The duties on soap the produce of Canada under the Trinidad Tariff are as follows:—

	Preferential Tariff. Produce of Canada.	General Tariff.
Soap—fancy, including perfumed and medicated soaps for toilet purposes.	3s. 4d. the 100 lb.	4s. 2d. the 100 lb.
Soap—common including laundry, polishing and soft soap	1s. 8d. the 100 lb.	2s. 1d. the 100 lb.

Like tariff preferences are granted by the other colonies parties to the West India Trade Agreement.

Mr. Tripp also refers to the very promising market in the West India colonies for Canadian-made boots and shoes, on which there is a decided tariff preference over like boots and shoes of United States manufacture.

Total Exports and Imports of the Dominion of Canada for the eight months ending November, 1913

Exports.	1911		1912		1913	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
	$	$	$	$	$	$
The Mine....	26,471,130	164,268	38,197,371	97,374	39,440,172	168,157
The Fisheries	10,708,226	79,759	10,499,824	84,245	13,556,463	41,702
The Forest...	31,355,048	195,300	33,574,767	376,400	33,194,796	553,209
Animals and their Produce ...	38,225,731	916,648	33,949,333	717,998	38,824,803	991,288
Agriculture..	66,899,816	7,686,108	96,349,845	8,536,996	142,338,227	8,187,480
Manufactures	22,256,088	4,474,815	27,359,484	5,974,272	35,879,368	7,893,231
Miscellaneous	89,685	694,621	62,908	1,697,410	78,153	2,469,010
Total ..	196,005,722	14,211,519	239,993,532	17,484,694	303,311,982	20,314.077

Imports.	1911	1912	1913
Dutiable Goods	$215,346,915	293,319,247	294,635,668
Free Goods	123,680,549	152,231,047	146,111,265
	$339,027,464	$445,550,294	$440,746,933
Duty collected.....	56,035,799	76,271,721	76,108,761

Exports and imports of coin and bullion not included in above

PARLIAMENTARY

By F. W. WEGENAST

A MAN can sell what he owns. It is difficult, if not impossible, to sell personal property in such a way that the purchaser cannot deal with it as he sees fit. A recent decision of the Supreme Court of the United States applies this principle to the case of retailers of books where the publisher has attempted to fix the price at which the book is to be retailed. The publishers attempted to restrain a retailer from selling at less than the fixed price, but the attempt was unsuccessful. An agreement between a wholesaler and a retailer under which the retailer agrees to sell goods at certain fixed prices is, of course, enforceable, but the remedy is an action for breach of contract. If the retailer is prepared to face such an action there is nothing to prevent him from selling the goods at any price, or, in fact, giving them away. The only practical remedy in most cases is for the wholesaler to refuse to supply the retailer with any more goods.

A despatch from Montreal states that the Minister of Justice, the Hon. C. J. Doherty, favors the introduction of a Bankruptcy Act, and has replied favorably to a request from Commercial bodies in Montreal asking for the establishment of a uniform bankruptcy system. The history of bankruptcy legislation in Canada is somewhat checkered. The last of the Canadian Insolvency Acts was dropped in 1880, and since that time insolvent estates have been dealt with under the laws of the various provinces, while the essential function of a bankruptcy law, the discharge of the bankrupt, has remained unexercised. As to the desirability of uniformity in the laws respecting insolvency there will be little difference of opinion. As to the comparative advantages of Dominion and Provincial legislation to the end of securing uniformity there may be some difference; and there may be still more difference of opinion as to the desirability of providing a means of discharging an honest bankrupt. These questions should be considered, however, apart from the success or failure, or the popularity or unpopularity, of former insolvency Acts. Insolvency legislation, like many other branches of commercial law, has made great advances during the past generation, and defects in practice which the older laws in all countries have exhibited have gradually been remedied. Whatever principles may or may not be adopted, there should be comparatively small difficulty in working them out successfully in the light of experience in other countries. It may be worth noting that every civilized country in the world except Canada, China and Japan, has now a bankruptcy system in some form.

One of the most important questions to be considered in the establishment of a bankruptcy system is whether the administration shall be confided to the provincial courts or whether special judicial machinery should be created by an extension of the powers of the Exchequer Courts or otherwise. In most or all federal countries insolvency matters, as also other matters of federal jurisdiction, are administered largely by federal courts. The powers of the Dominion Parliament to establish courts for the administration of federal laws have so far been only sparingly exercised.

In a recent case before the Court of Appeal for Ontario a succinct and useful statement of the law governing delivery of goods was given by Mr. Justice Riddell. The facts were as follows:

> The plaintiff, a wholesale merchant in Montreal, received through his traveller, from the defendant, a merchant in Port Arthur, an order for certain goods f.o.b. at Montreal, against a sight draft. The goods were selected from stock and loaded on a steamship at Montreal; the bill of lading, being taken in the name of the seller, was by him endorsed in blank and sent to a bank at Port Arthur with draft attached and with instructions to deliver the bill of lading to the defendant upon payment of the draft. When the shipment arrived at Port Arthur, the defendant found by examination that part of the goods, a case of cheese, was missing. He for that reason refused to pay the draft, and accordingly was not given the bill of lading. Some correspondence took place between the parties, the plaintiff urging the defendant to pay the draft and make his claim for the missing goods, the defendant declining to pay until the cheese was forthcoming, although he expressed his willingness to pay as soon as the shipment was complete. The bill of lading was returned with the unaccepted draft to the plaintiff, who brought his action in the County Court.

On appeal from the County Court judge it was held that the property in the goods did not pass to the defendant, and that the plaintiff could not recover. Mr. Justice Riddell said:

> "If, upon an order for undetermined goods to be shipped f.o.b. the seller delivers to the designated common carrier goods which answer the order, without more, the property passes forthwith to the purchaser—and this is the case also if a bill of lading is taken, and taken in the name of the purchaser. If, however, the bill of lading is taken in the name of the seller, *prima facie* he retains the disposing power over and property in the goods. He may, indeed, endorse it over to the purchaser forthwith, and send it forward for delivery to the purchaser; in that case the taking of the bill of lading to his own order is a mere form, and the transaction is equivalent to taking the bill of lading in the name of the purchaser. The seller may endorse in blank and send forward to his agent, bank, etc., for delivery to the purchaser upon payment for the goods, acceptance of a draft, or performance of some other condition—in that case the goods remain in the control and are the property of the seller, at least until the condition is fulfilled or the purchaser offers to fulfil it and demands the bill of lading."

SAFETY

Industrial Canada will be glad to receive items of news for this page from manufacturers who believe in "Safety First."

METHODS to safeguard workers from the evil results of lead poisoning are given in the following conclusion of an exhaustive article published in *The Travellers' Standard*:

"Danger is associated with all of the approximately 150 industries in which lead is used. To eliminate the exposure to noxious dust and fumes as far as possible, the machinery should be enclosed, manual labor in the dusty processes should be dispensed with, and mechanical mixers and conveyors should be employed wherever they are practicable. Thorough ventilation of all the rooms and buildings in which dust and fumes may collect is also of fundamental importance. All furnaces should be hooded, and fans or other apparatus for carrying off the poisonous fumes should be installed. Respirators should be provided for the men. Plentiful supplies of hot and cold water, soap, nail brushes, and towels should also be furnished, and care should be taken to see that they are frequently and faithfully used. Lockers should be provided for the street clothes of the workers, in a room entirely separated from the workplaces; and the employees should be provided with overalls and jumpers, and with some effective form of head covering to protect the hair. A regular weekly examination of all employees should be made by a competent physician, who should give immediate treatment to every person showing symptoms of poisoning. Warning signs, printed in all the languages spoken by the employees, should be conspicuously posted in every workroom, and as some of the workers are not able to read even the language that they speak, reliable interpreters should be provided to give such men oral instruction concerning the dangers of their work.

"To secure the best results from the regulations here suggested, it is essential for the workers themselves to do everything possible for their own protection. They must be particularly painstaking in regard to personal cleanliness, and they must refrain absolutely from the use of tobacco while in the workplaces. They must eat only in the rooms that are reserved for that purpose, and before eating they must thoroughly cleanse their hands and faces from every particle of lead dust. All outside garments should be changed before entering the work rooms, and again before going home at night; and under all circumstances it should be remembered that in the effort to prevent poisoning in our lead-using industries, *absolute cleanliness*, even to the verge of apparent absurdity, is the keynote of success."

The Workmen's Compensation Act drafted for Ontario by Sir William Meredith provides compensation for those afflicted by "industrial diseases." One of these diseases is lead poisoning.

Doubtless the first work to be done by the safety inspector will be to guard all unprotected gears, belts, pulleys, shafting, etc., but, as analysis of accident records show that more than 75 per cent. of industrial accidents are due wholly to carelessness of some degree on the part of the person injured, he will soon be convinced that his greatest work in accident prevention must be in educating the workmen to habits of caution. This can be accomplished through various means, the most effective being the personal work of safety committees chosen to act in each department, their work being supplemented and strengthened by safety rules and regulations, which should be issued in printed form to each employee. —*Safety Engineering.*

TEN COMMANDMENTS OF SAFETY.

By H. S. Pasley, Rochester Railway & Light Company.

1. Thou shalt have no other thoughts but thy work.

2. Thou shalt take no unnecessary risks, nor try to show off, nor play practical jokes, for by thy carelessness thou may do injuries which will have effect unto the third and fourth generations to follow.

3. Thou shalt not swear, nor lose thy temper when things do not come just right.

4. Remember that thou art not the only one on the job, and that other lives are just as important as thine own.

5. Honor thy job and thyself that thy days may be long in employment.

6. Thou shalt not clean machinery while it is in motion.

7. Thou shalt not watch thy neighbor's work, but attend to thine own.

8. Thou shalt not let the sleeves of thy shirt hang loose, nor the flaps of thy coat be unbuttoned, as they may get caught in the machinery.

9. Thou shalt not throw matches or greasy waste on the floor, nor scatter oil around the bearings, as a dirty worker is a clumsy worker, and a clumsy worker is a danger to his fellow-workers.

10. Thou shalt not interfere with the switches, nor the dynamos, nor the cables, nor the engines, nor anything else thou art told is dangerous.

A tool grinder employed at one of our plants for over twenty years got some emery dust in his eye. He did not go to the hospital until three days later, and at that time his eye was covered with opacities, which showed that he had had someone try to remove the dust.

How frequently, in going through a mill, we come upon two workmen, one backed against a wall and the other digging at his eye with a match, or some other improvised instrument, trying to remove a particle which has become imbedded on the ball. You even will hear of men who are experts in this work and who have an especially sharpened instrument with which to do it.

If you would realize that when dirt is stuck on the eye ball a wound exists, and though it is too small for you to see it is as "big as a house" to the microbe that causes the trouble, you would understand the reason why the wound should be disinfected.

If you get something in your eye go to the company doctor—not to the eye-picker. It does not cost you anything for expert treatment, and the company is paying your time while you are getting the treatment.

Better take a little trouble and save your sight.—*Illinois Steel Bulletin.*

Educate the management as to the duty each man owes to the other. Establish a deeply seated impression in their memories; obtain their harmonious support, and co-operate with them on all safety engineering problems, with a view of making the safeguards provided practical.—*Safety Engineering.*

WOMEN'S WAGES AND IMMORALITY

By PERRY F. POWERS

Commissioner of Labor of the State of Michigan, in the "American Employer"

IT is not necessary here to declare that the hard conditions of poverty tend to weaken and to break down the moral fibre of both men and women. The humiliation and the bitterness of actual need are not conducive to self-respect or pride or to any of the necessary accompanists of virtue and honor and loyalty. Social and economic forces are striving against poverty as one of the evils that very largely contribute to debasement and disease and crime. Whatever influence the establishment of a minimum wage system might provide that would make a better environment possible and that would raise to even a slight extent the standard of life and of living would be helpful in opposition to all the forces of evil. They do well, therefore, who strive against the existence of an inadequate wage and urge the stablishment of a minimum, if possible, that will guard against the evils that accompany it.

Unjustified Statements.

But there is very little in actual experience that will justify the somewhat hysterical statements that have been made with reference to the relation of wages to immorality. It has not been in any respect found to be true that wages provide a barometer as to immorality or character. The statement may possibly have had a good intent but it is cruelly unjust to a very large majority of the wage earning women and girls of this state and of other states who may be working for comparatively small wages to have it declared that immorality is necessarily or usually related to their conditions. The results of inspections made by the Labor Department in our own state provide no results that would lead to such a conclusion.

If wages could be accepted as a basis of assurance as to virtue and character, or if the surroundings of poverty should be admitted as evidence or proof in such directions, there would necessarily follow the assumption that better wages would guard securely against immorality and wrong-doing and that comfort and wealth would know nothing of the evils and vicious possibilities of life. Such an assumption would be directly contrary to what we know to be true.

It is true that underpaid women and girls are not given a fair chance in the contests of life, but it is further true that a very large majority of such women and girls protect themselves through self-denial and sacrifice deserving of highest commendation rather than unjust suspicion and undeserved suggestion. It is unquestionably true that effort and struggle is necessary against surroundings that tend to discourage and to demoralize, but it is a far cry from the struggle against such conditions and to the just demand for a living wage to the assumption that morality and immorality are factors depending upon a weekly wage. Such a suggestion is not only a cruel libel upon the vast majority of women, but it is contrary to the obvious facts of life.

Recent inquiry and investigation representing the Michigan Labor Department disclose some important facts relating to another much discussed subject of public interest and general concern. There has been an almost general assumption that the relation of women to modern industry has weakened and lessened her adherence to the so-called domestic virtues and to womanly qualities. There has been a fear that through their larger entrance into the occupations of office and store and factory and shop and mill an undesirable change would be wrought with reference to the morals and the habits of women. No state of facts has been developed to give warrant to this fear.

The results of investigations made in Michigan and in other states are quite to the contrary. It was found to be true that of 216 occupants of places of professional immorality in five cities of Michigan less than twenty-five per cent had passed through any of the later and more modern occupations of women in reaching these resorts. Of the entire number, 114 had been related only to domestic service, twenty-nine had never been employed for wages in any capacity, and 13 had gone from their homes into occupations as milliners and dressmakers and assistants to tailors. Only 50 of the 216 occupants of immoral resorts questioned as to their former relations to wage earning occupations had been connected with any line of store and shop and factory work.

It will, of course, be kept in mind that too much reliance should not be placed upon a comparatively limited number of cases relating to the experience quoted. Nor would any final conclusion with reference to the results of the investigations told of be quite justified. It is probably true, however, that in answering questions as to their previous occupations the women of the resorts would have been more inclined to claim connection with the occupations that might suggest relation to a higher social status than otherwise. Human nature as we ordinarily know it would have prompted claims as to store and office work rather than admissions as to service showing an assumed lower social status. It can, therefore, safely be believed that the figures given as to the former occupations of the 216 women questioned are worthy of acceptance. As to conclusion based thereon there may be reasonable disagreement.

It may be well, however, in this connection to take note of the fact that all other investigations along such lines show quite similar results. By far the greater number of participants in lives of professional immorality and other forms of criminality come from the so-called "traditional pursuits" of women—from occupations as housemaids, waitresses, nurses, cooks and chambermaids. It was declared by Ida M. Tarbell that: "Tested by the ideals of labor toward which we are supposed to be working, the house worker shows the least progress. No other honest work in the country would appear to so belittle a woman socially as housework performed for money. It is the only field of labor that has scarcely felt the touch of the modern labor movement."

Household Work.

And more serious still, Miss Tarbell declares, is the relation that has been shown to exist between criminality and household occupations. Nothing, indeed, which recent investigation has established ought to startle the American woman more. Contrary to public opinion, it is not the factory and the shop that are making the largest number of women offenders; it is the household. Nearly one-half of the first thousand girls sent to that remarkable institution at Bedford Hills, New York, where Dr. Katherine Davis is working on a difficult problem, had been in general housework.

In a recent careful study of more than three thousand women criminals, the New York Bureau of Labor found that eighty per cent. came directly from their homes or from the traditional pursuits of women. It will, therefore, be noted that, whatever lessons or suggestions the facts may possess, there can be no difference of opinion as to the mistake made

in assuming that women's relation to modern industry has led to a change or loss on her part with reference to home ideals or to any phase of moral inclination and moral insistence.

It may not seem best to fully accept the testimony of formal results of observation and investigation as to influences of occupation. The assumption that the invasion of women into office and store and industrial work has actually provided a more favorable moral atmosphere and has been followed by notable moral improvement is so at variance with fears and expectations as to very reasonably cause reluctance to accept it. But there should be no hesitation or reluctance with reference to the acceptance of the unvarying and quite conclusive testimony that there has come no marked moral loss or deterioration of fundamental qualities by reason of woman's relation to away-from-home occupations.

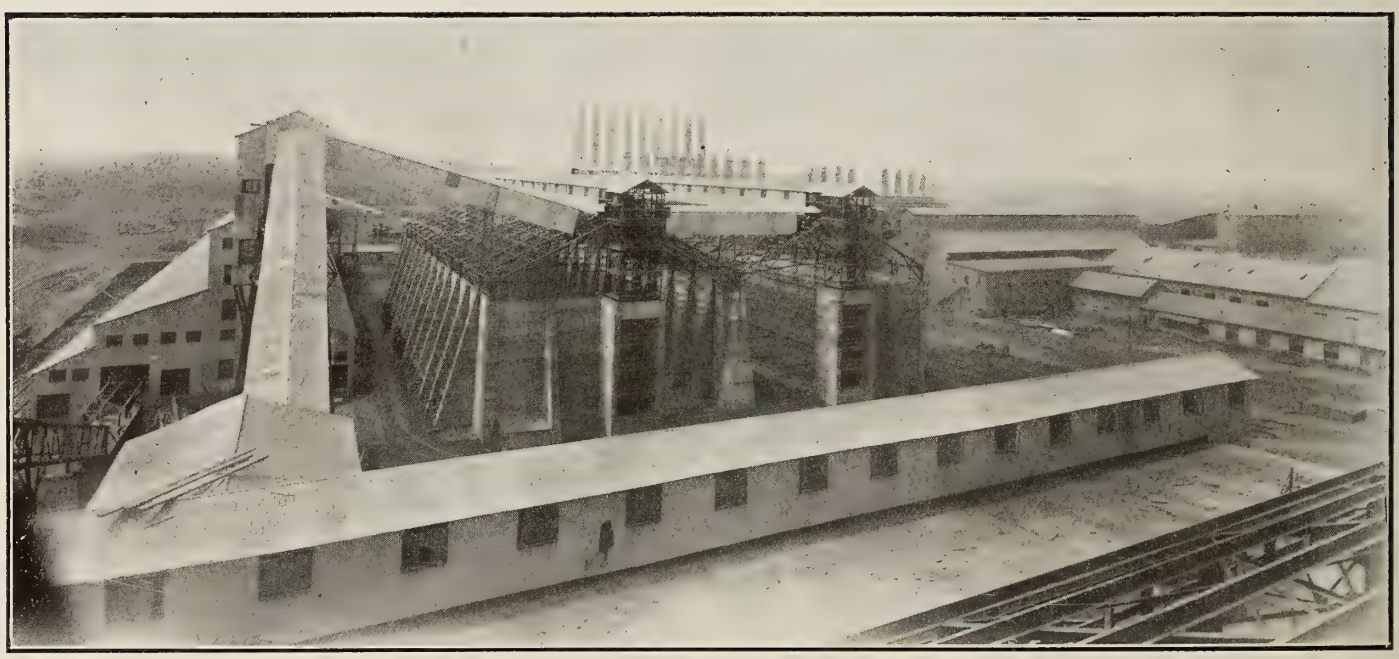
NOTES—In the report in which the above appears are tables prepared from the results of the investigation of Luella M. Burton, Chief Woman Factory Inspector, which show the character of the former occupations of the 216 inmates of houses of prostitution that she interviewed and the reasons given by them for having entered the life. These tabulated statements are as follows:

Former Occupations.

Domestic	83
Waitress	25
Factory	19
Sales girl	13
Office work	9
Telephone operator	8
Cafe kitchen	8
Milliner	6
Cash girl	4
Tailor shop	3
Dressmaker	2
Laundress	2
Canvasser	1
Stage	1
Cafe cashier	1
Barmaid	1
Bean elevator	1
Never employed	29
	216

Reasons Given.

Wanted to earn more money for pretty clothes	64
Liked the life, excitement and pretty clothes	55
Influenced by girl associates	38
Low wages, children to support	15
Couldn't live on wages earned	11
Influenced by men	10
Didn't like work	8
Influenced by proprietress of disreputable house	6
Went to disreputable house to work and remained as inmate	4
Husband wouldn't support her	2
Couldn't find work	2
Reason not given	1
	216



Canada Cement Company's New Mill

The new plant of the Canada Cement Company, Limited, at Pointe aux Trembles, Montreal, is one of the most extensive and thoroughly equipped in the world.

The establishment consists of a crusher building, a rock storage building, a building for drying raw materials, a mill for grinding raw materials, a kiln building, a storage house for clinker, a mill for grinding clinker, a storage house for gypsum and five cement storage buildings, capable of storing one and a half million barrels of cement, covering an area of forty acres. The materials are obtained from quarries situated alongside of the mill and consist principally of a rock known as "Cement Rock." Coal is received by boats and is unloaded by means of a bridge crane. A private railroad, known as the Pointe aux Trembles Terminal Railway, runs from the dock to the mills and has connections with the C. N. R. main line and with the Montreal Tramways Co. Shipments are made at the present time either by rail, trolley or boat. The daily output amounts to 12,000 barrels per day, or 48,000 sacks. In the manufacture of this amount of cement approximately 200,000 tons of coal are needed per year.

CANADIAN BUSINESS FAILURES INCREASED.

There were a good many more commercial failures in the Dominion of Canada during November than in the corresponding period of preceding years, while the amount of defaulted indebtedness was also noticeably larger. Total insolvencies last month numbered no less than 199 and involved $1,763,256, as against 99 for $1,089,044 a year ago, 109 for $656,461 in 1911, and only 88 in 1910, when the liabilities were but $610,257. Both the trading and manufacturing classes shared in the increase, the former showing 57 reverses for $739,133, as compared with 26 in the previous year for $397,009, 30 in 1911 for $289,479, and 23 for the small sum of $188,473 in 1910. In November, 1909, the losses were unusually light, numerically, although the 17 suspensions involved slightly more than $287,000. The exhibit for the trading division was distinctly adverse, as the 133 failures had liabilities of $997,923. This contrasted with 70 similar defaults for $646,427 last year, 77 for $361,420 in 1911, and only 62 in 1910, when the amount was $326,983. The record for 1909 showed 89 insolvencies for a total of $690,323. In point of number, the class embracing agents, brokers, etc., made an unfavorable comparison, there having been 9 such reverses, as against 3 in 1912, 2 in 1911, and 3 in 1910, but the indebtedness of $26,200 was lighter than in both 1912, 1910 and 1909, the figures for those years being $45,608, $94,801 and $100,000, respectively. In 1911, however, the sum of money involved was less than $6,000.—*Dun's Review.*

NEW MOTOR MAGAZINE.

The first issue of Canadian Motorist, official organ published by Ontario Motor League, has been received. This new monthly is published by motorists for motorists, and is designed to advance the various well-known policies of the Ontario Motor League with respect to good roads and improved motor vehicle legislation and regulations. It is the medium of important and official announcements, and the January number is featured by the first announcement of the chauffeur's examination, which went into effect at the New Year. An article of the amount of money paid by motorists in fines during 1913, showing a total of $15,752, is another story of unusual interest.

The enterprise of the League in publishing its own magazine is to be commended, and, judging The Canadian Motorist by its initial number, it will attract a great deal of attention among the automobile owners.

CAUSES OF FIRE.

Carelessness, incapacity and crime are responsible for the majority of fires, said Mr. H. Lye, the well-known fire adjuster, in an address before the Vancouver Board of Trade. Once in a while one was purely accidental. He did not class spontaneous combustion on the accidental list. Spontaneous combustion, he said, was generally due to the carelessly leaving together of materials that in the natural course of events, if left long enough, would produce a blaze. Flimsily wooden buildings in business districts were always a menace, and he said he knew of wooden buildings of some pretensions that were so flimsily constructed that it was a wonder that they held together. Carelessly handled pipes and cigars and the matches used in connection with them were dangerous, but the cigarette, he added, was a greater menace.

Two Vancouver fires in October, he declared, were caused by cigarettes. A cigar butt may go out when thrown down, but a cigarette, being made of different material, only smoulders. He thought that there should be a regularly constituted fire inspection board. He did not approve of the suggestion of an alderman that firemen should be fire inspectors in their spare time.

"You can not," he said, "fix by by-law the times when fires will occur, so you can not fix the spare time of a fireman. Every fire hall must have an adequate staff always on duty."

He thought that Vancouver should have its by-laws dealing with fire protection consolidated and brought up to date. Those in existence at present, he said, "had been passed spasmodically and were systematically ignored."—*Monetary Times.*



Acadia Sugar Refinery, Halifax, N.S.

The above is from a photograph of the great plant of the Acadia Sugar Refineries, which is being erected in Halifax, Nova Scotia. It will cost, when completed, $3,000,000, and will be one of the best equipped refineries in the world.

THE CANADIAN PEAT INDUSTRY.

The Dominion Government, through the medium of the Department of Mines, has just undertaken a very extensive and exhaustive investigation into the merits of peat as fuel, the commercial feasibility of its manufacture at a reasonable marketable price, and the available supply in Canada.

For four or five years past the Department of Mines carried on certain experiments at the plant which was built at Alfred, and the officials in charge reported that any amount of peat fuel could be manufactured and placed upon the market at two dollars a ton, one ton of peat being equivalent to half a ton of soft coal. Recently discoveries in England, Germany and Sweden, however, in connection with the possibilities of peat as a fuel has convinced the government that a further and more comprehensive investigation into the possibilities of peat manufacture in Canada is advisable.

The government is experiencing considerable difficulty with get-rich-quick men, who, posing as promoters of peat enterprises, induced investors to place considerable money in ventures that are not based upon intelligent information in regard to the possibilities of the industry.

SMART-WOODS ABSORBS EMPIRE COTTON MILLS.

At a meeting of the shareholders of the Smart-Woods Company held at Montreal the Empire Cotton Mills was formally taken over by the Smart-Woods Company, which already held the controlling interest.

Lieut.-Col. C. A. Smart, president of the Smart-Woods Company, stated after the meeting that the Empire Cotton Mills would continue to do business under the same name, but would become one of the five properties of the Smart-Woods Company.

Col. Smart said that the mill is doing well, and 50 per cent. of its machinery is already in operation and turning out fine stuff.

Another meeting was held, when a two million and one-half bond issue was authorized. This bond issue is at the rate of 6 per cent., and is secured by all five properties of the company. The money procured will be used in improvements to plant and in other ways.

The Empire Cotton Mills Company, which is now a part of the Smart-Woods Company, is situated at Welland, Ont., and was constructed less than a year ago.

ELEVATING CARS INSTEAD OF TRUCKS.

At an eastern hardware-jobbing warehouse, an unusual way of handling incoming and outgoing freight has been worked out. The building is four storeys. The problem of distributing incoming and assembling outgoing freight, accordingly, was a difficult one. But it was neatly solved by installing a hydraulic elevator capable of lifting a loaded car. The operation is like this: on the way up the elevator stops at each floor and the goods there belonging are unloaded. On the way down the elevator again stops at each floor and the car loads up with outgoing wares.

By this arrangement not only is a large amount of trucking and elevator time saved, but the space-wasting, time-eating and confusion-causing hurly-burly which ordinarily characterizes warehouse receiving and shipping, when it is all on one floor, is totally eliminated and this space made as available as the upper floor for warehouse purposes.

Careful planning of shipments is of course necessary in order to take full advantage of the facilities afforded, and occasionally it is necessary to hold a car at the bottom until its load can be completed. It is also necessary for best working to have incoming freight marked for the floor to which it is consigned. But the emphasis is on forethought and design for the best working of practically every time- and labor-saving scheme and device, and often the chief economics spring from the practice of the qualities thus enforced.—*Factory.*

ONTARIO HYDRO CUTS RATE.

The Ontario Hydro-Electric Commissioners have made an announcement of great interest to Western Ontario manufacturers.

The rate has been reduced to the following municipalities in the amounts named, the new figures to be operative after November 1st, 1913:—

	Per horsepower.
Hamilton	$16 00 to $15 00
Dundas	16 00 to 15 00
Caledonia	29 10 to 24 00
London	24 00 to 23 00
Guelph	22 00 to 21 00
Preston	21 50 to 21 00
Galt	22 00 to 21 50
Waterloo	23 50 to 22 50
Berlin	22 50 to 21 50
Baden	37 00 to 32 00
St. Thomas	29 00 to 28 00
Port Credit	31 00 to 28 00

SHOULD CHECK FREIGHT CHARGES.

Members should check freight charges to interior British Columbia points, as it has been found that carriers' agents at points east of Port Arthur are not carrying out the instructions contained in their tariffs.

It will occasionally be found that lower through rates can be made to interior British Columbia points by using the combination of Vancouver rates, as per Transcontinental Tariff 5G; C.R.C. No. 319, plus the local tariff rates from Vancouver. When this combination makes lower rates agents will way-bill accordingly.



THE NEW GAme.

Who is to blame for the high cost of living? Start at the top, as indicated by the arrow, and keep on going around the circle until you are tired. Each figure pleads not guilty.

—Montreal Telegraph.

HYDRO

wishes every manufacturer the very best that the coming New Year can hold———

in success——
in profit———
and happiness.

Toronto Hydro-Electric System

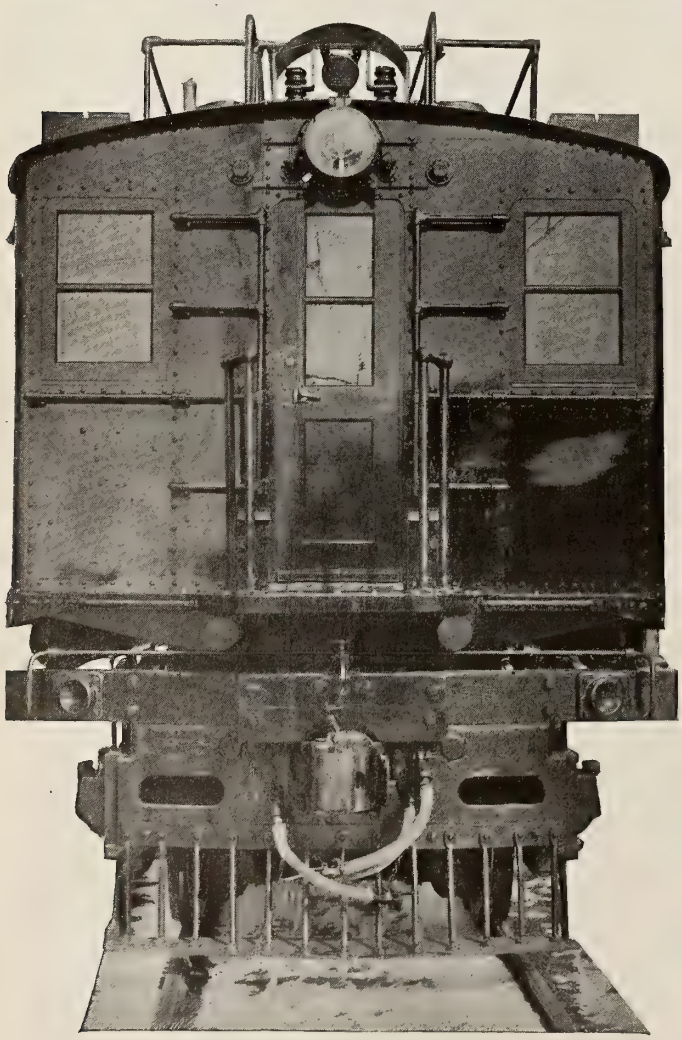
226 Yonge St. Adel. 2I20

ELECTRIC ENGINES FOR MOUNT ROYAL TUNNEL.

The tunneling of Mount Royal, Montreal, by the Canadian Northern Railway Company, in order to reach a terminal in the centre of the City of Montreal, was completed in December, when trains were run through the new tunnel under the mountain. This engineering project was rendered practicable largely on account of recent improvements in the electric locomotive. Considerations of cleanliness and health pointed to the necessary use of electricity as the motive power in the tunnel and it will therefore be interesting to describe a few features in the design of the locomotives selected for the work. The equipment for the electrification of the tunnel and terminals, for which the Canadian General Electric Company, Limited, have the contract, includes six electric locomotives designed for an operating potential of 2,400 volts, direct current, with overhead trolley construction. Two of these locomotives, operated and controlled as a single unit, will have ample capacity and suitable speed requirements for handling the heavy transcontinental passenger trains—1,130 tons trailing load—within the Montreal terminal zone. A single locomotive will successfully handle the freight trains—1,000 tons trailing load—and the local passenger service—500 tons trailing load.

Locomotives.

The general type of the locomotive proposed is that known as the Box Cab-Articulated running gear type. The estimated



Electric Locomotive—End View

weight of the complete locomotive is 83 tons. It has four axles with all of the weight of the locomotive evenly distributed over the eight driving wheels, thus securing the maximum adhesive weight on drivers. The running gear consists of two four-wheel trucks, articulated together by a heavy hinge. The equalization of the trucks is accomplished by a heavy locomotive type semi-elliptic leaf spring over each journal box, connected through spring hangers to the frame and to the equalizer bars. Practically a three point suspension is thus supplied through the side equalization of one of the trucks and both side and cross equalization of the other truck. With the Miner friction draft gear mounted in the end frame casting of the truck, this type of construction restricts the hauling and buffing stresses to the truck side frames and articulated joint, instead of through the cab centre plate. This relieves the cab and apparatus from the effect of severe shocks.

Both the box cab and platform are built of plates, sheets, angles and heavy channels and are thoroughly reinforced throughout. The box cab is divided into three compartments; the apparatus compartment in the centre and the two operators' compartments at the ends. Each operator's compartment has a full complement of apparatus, consisting of controller, control switches, meter, air brake control apparatus, air gauges, pantagraph control and heaters, thus providing the locomotive with a complete double end control. All apparatus subject to 2,400 volt potential is located in the centre apparatus compartment and properly screened to protect against accidental contact. The location and general arrangement of this apparatus is such as to provide easy access from all sides for inspection, cleaning and repairs.

Control Equipment.

Multiple unit double end control equipment is proposed for the locomotives, all the control points being proportioned and adjusted so as to secure a smooth and even acceleration at all times, corresponding to a current consumption near the slipping point of the wheels. The transition between series and series-parallel is effected by a special electro-pneumatically operated change-over switch and the motor fields will always be on the ground side of the armature.

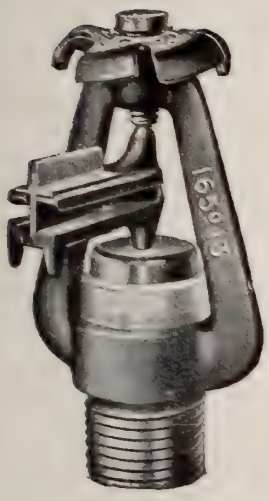
A motor generator set will supply 125 volt energy for the operation of the control, and a 2,400 volt air compressor of 100 cubic feet free air piston displacement is provided as part of the air brake equipment. Two air operated roller pantagraphs and a properly insulated bus line are located upon the roof. The bus line will supply power to two or more units from the pantagraphs of any of these units.

The motor equipment consists of four 229 commutating pole type motors wound for 1,200 volts and insulated for 2,400 volts, so that two may be connected permanently in series and operated on a 2,400 volt circuit. These motors are geared to the wheels through twin gears, there being one pinion on each end of the armature shafts. This motor is specially designed for locomotive service and is provided with forced ventilation by a blower located on the apparatus compartment. The locomotives are geared for a free running speed on tangent level track of approximately 45 miles per hour and will be operated as two-speed machines with ten points in series and nine points series-parallel.

The air-brake equipment will be the straight air and automatic type so as to combine the desirable features for train operation through an equalizing reservoir and independent operation of the brakes upon the locomotive. Provision is made for the multiple operation of the compressors upon all locomotives when operating in multiple so as to distribute the duty upon all the compressors in the train.

The motors will be operated by two-speed control arranged to operate the motors in series and series parallel. The external regulating resistance is divided into two parts, each part being direct connected to a pair of motors per-

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This watchman, silent, ever ready, ever-watchful, will save from 40 to 80 per cent. of your insurance premiums.
He will do more. He will guard your factory and office night and day. Sundays and work-days. No fire escapes his attention. It is drowned before it has a chance to spread. In the basement, on the top floor, in odd corners, this watchman stands, faithful always.

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You can carry your present insurance and cut your premiums from 40 to 80 per cent. by installing our sprinkler system.

The General Fire Equipment Company Limited

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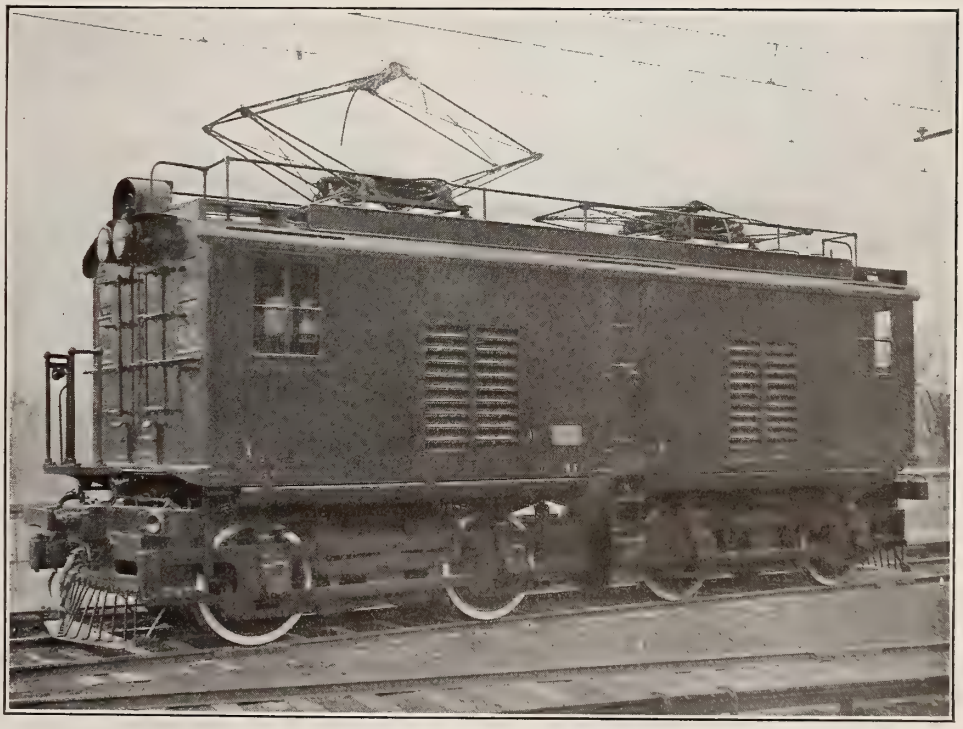
manently connected in series. The two pairs of motors, with their resistances, are all connected in series on the first point of the control, the resistance being varied through the first nine points on the controller and finally short circuited on the tenth, or running point. The two pairs of motors are then similarly operated in series-parallel and all resistances cut out on the last or full speed running point.

A special electro-pneumatically operated change-over switch is used to make the transition between series and series-parallel so that there will be no appreciable reduction in tractive effort during the change. A smooth transition between all points, both rheostatic and transitional, insures motor operation close to the slipping point of the wheels and a steady, gradual acceleration at all times.

The motors have sufficient capacity to slip the wheels, the slipping point serving as a current limit to prevent overloading. Either pair of motors may be cut off, in case of emergency, by means of a special handle on the change-over switch.

Controllers.

The master controllers receive their energizing current at a potential of 125 volts from the motor-generator set and provide for operating the contractors so they close the motor circuits under different combinations and regulate the external motor resistances to give 10 points series and 9 points parallel. The controller is of the non-automatic type and has two handles, one regulating the applied voltage at the motors and the other for controlling the direction of rotation of the motors.



Electric Locomotive for Mount Royal Tunnel

Annual Meeting

Union Bank of Canada

HELD AT

WINNIPEG, DECEMBER 17th, 1913

The Forty-ninth Annual General Meeting of the Shareholders was held at the Banking House in Winnipeg on Wednesday, December 17th, 1913.

The Annual General Meeting for the election of directors and other general business, was held at the banking house, in the City of Winnipeg, on Wednesday, the 17th of December, 1913. The meeting was largely attended.

The Chairman read the Annual Report of the Directors, as follows:

FORTY-NINTH ANNUAL STATEMENT
29th November, 1913.

PROFIT AND LOSS ACCOUNT.

Balance at credit of account, 30th November, 1912.	$ 75,483 76
Net profits for the year, after deducting expenses of management, interest due depositors, reserving for interest and exchange, and making provision for bad and doubtful debts and for rebate on bills under discount, have amounted to. . . .	750,095 27
(being slightly over 15 per cent. on the paid-up capital, during the year).	
	$825,579 03

Which has been applied as follows:

Dividend No. 104, 2 per cent. paid March 1st, 1913.	100,000 00
" No. 105, 2 per cent. paid June 1st, 1913..	100,000 00
" No. 106, 2 per cent. paid September 1st, 1913. . . .	100,000 00
" No. 107, 2 per cent. payable December 1st, 1913. . . .	100,000 00
Bonus of 1 per cent. payable March 1st, 1914, to shareholders of record as on February 14th, 1914. . . .	50,000 00
Transferred to Rest Account	100,000 00
Reserved for depreciation in securities owned by the Bank. . . .	125,000 00
Written off Bank Premises Account. . . .	50,000 00
Contribution to Officers' Pension Fund	10,000 00
Balance of Profits carried forward. . . .	90,579 03
	$825,579 03

GENERAL STATEMENT

LIABILITIES.

Notes of the Bank in circulation. . . .		$ 6,287,179 00
Deposits not bearing interest. . . .	$19,038,076 18	
Deposits bearing interest	45,557,212 01	
		64,595,288 19
Balances due to other Banks in Canada. . . .		42,361 74
Balances due to Agencies of the Bank and to other Banks in Foreign Countries. . . .		412,539 92
Bills Payable		150,866 00
Acceptances under Letters of Credit. . . .		634,390 57
Total Liabilities to the public. . . .		$72,122,625 42
Capital paid up		5,000,000 00
Rest Account		3,400,000 00
Dividend No. 107. . . .		100,000 00
Bonus payable 1st March, 1914, to Shareholders of record as on February 14th, 1914. . . .		50,000 00
Dividends unclaimed		3,328 03
Balance of Profit and Loss Account carried forward. . . .		90,579 03
		$80,766,532 48

ASSETS.

Gold and Silver Coin	$2,512,330 37	
Dominion Government Notes	4,754,501 00	
		$ 7,266,831 37
Notes of other Banks		887,356 00
Cheques on other Banks. . . .		3,631,082 06
Balances due by other Banks in Canada. . . .		170,389 07
Balances due by Banks and Banking Correspondents elsewhere than in Canada. . . .		617,031 08
Dominion and Provincial Government Securities not exceeding market value		570,707 50
Canadian Municipal Securities, and British, Foreign and Colonial Public Securities, other than Canadian. . . .		440,461 42
Railway and other Bonds, Debentures and Stocks not exceeding market value		2,212,271 16
Call and Short (not exceeding 30 days) Loans in Canada on Bonds, Debentures and Stocks. . . .		3,250,894 32
Call and Short (not exceeding 30 days) Loans elsewhere than in Canada. . . .		8,608,756 16
		$27,655,780 14
Other Current Loans and Discounts in Canada (less rebate of interest)		46,798,969 15
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest). . . .		1,640,472 84
Liabilities of customers under Letters of Credit, as per contra		634,390 57
Real Estate other than Bank Premises. . . .		155,545 25
Mortgages on Real Estate sold by the Bank. . . .		112,318 89
Overdue Debts, estimated loss provided for. . . .		163,471 25
Bank Premises		2,031,031 02
Deposit with the Minister of Finance for the purposes of the Circulation Fund. . . .		240,000 00
Deposit in the Central Gold Reserves. . . .		1,300,000 00
Other Assets not included in the foregoing. . . .		34,553 37
		$80,766,532 48

G. H BALFOUR, General Manager.

JOHN GALT, President.

The Directors have pleasure in presenting the Report showing the result of the Bank's business for the year ended 30th November, 1913.

The New Bank Act, as revised, went into force on July 1st. You will notice several changes in the form of our statement. Under Section 56 of the new Act, you are required at this meeting to appoint Auditors for the Bank, and to vote the amount of their remuneration.

A new set of By-laws will be submitted to you for approval and adoption if thought advisable. It will be necessary to change the date of our Annual Meeting from December to January in order that the Auditors may have sufficient time in which to complete their work.

Your Directors wish to place on record their appreciation of the excellent advice, helpful guidance and valuable work by the Bank's Committee in London, England.

It is with the deepest regret the Directors have to record the death of the Honorary President, the Honorable John Sharples. Mr. Sharples was for many years a Director, and for five years the honored and esteemed President of this Bank. Its present standing is largely due to his great interest in its welfare and sound judgment in business matters.

Mr. Wm. Price, of Quebec, was elected Honorary President, and Mr. Geo. H. Thomson has succeeded him as Vice-President.

The vacancy on the Board has been filled by the election of Mr. B. B. Cronyn, Vice-President of the W. R. Brock Company, Limited, a gentleman of long business experience in Toronto. We feel sure the judgment and influence of Mr. Cronyn will be of great advantage to the Bank.

During the past year thirty-one Branches and Agencies of the Bank have been opened in the several Provinces as follows: Ontario 4, Quebec 6, Alberta 2, British Columbia 5, Manitoba 4, Saskatchewan 10.

Three Branches in Ontario which were not giving satisfactory results have been closed.

The total number of Branches and Agencies is now 313.

The usual inspection of Head Office and of all Branches and Agencies of the Bank has been made.

JOHN GALT, President.

The President, Mr. John Galt, moved that the report be adopted and printed for distribution among the Shareholders and addressed the Meeting as follows:

THE PRESIDENT'S ADDRESS

In moving the adoption of the Directors' Report, I have an opportunity of placing before our Shareholders a review of general conditions in Canada as they present themselves to us. The financial statement will be dealt with later by the General Manager. I shall only say that this statement is satisfactory, as it shows steady progress, and also indicates the conservative policy, which, in my judgment, is characteristic of the management of the Bank.

The year 1913 has been a trying one both for borrower and lender. There has been a general feeling of uneasiness which has caused financiers to carry an unusually large proportion of their funds in a liquid form. This has curtailed the loaning power of all the Banks and has checked the encouragement of new business, but we have been careful to see that our customers have had the money necessary to carry on their legitimate trade, and I do not think we have given any of them reason to complain.

The capital available for investment in new fixed forms such as railways, canals, city and farm buildings, etc., is, of course, limited. Of late years it has been pretty well absorbed. It is clear that when the supply is exhausted, or when causes operate to check it, expenditure in fixed forms must be curtailed. This point seems to have been reached, and Canada will have to mark time until confidence is restored and until the older countries, from whom we draw much of our capital, are in a position to again invest their savings and profits. The natural resources to Canada are so vast and so attractive, that the capital necessary for their development will, undoubtedly, be forthcoming when financial conditions become more settled.

The causes underlying the feeling of anxiety to which I have referred were world-wide, and whilst some of them are now removed, we still feel that caution is advisable and that strictest economy in both public and private affairs is necessary.

Speculation in real estate is over for the present, but the demand for building sites must continue in a country where the population is steadily increasing, and holders of such property should not be apprehensive of this class of investment. That the inability of speculators to turn over their property has had so little effect on the general business of the country is largely due to the conservative and prudent action of Canadian Banks, for they have consistently discouraged and refused to finance speculative land operations.

CROP OF 1913

The statistics which are at our command will be furnished by the Superintendents in their reports on the several Provinces. I may say, speaking generally, that the crop results have been satisfactory. In the three great wheat-growing Provinces, this

has been a banner year. Not only has the yield been large, but the average quality has never been equalled, and the cost of harvesting has been unusually low owing to the magnificent weather we have enjoyed. This has, to some extent, offset the low prices which prevailed. Providence has indeed been kind to us, and that, too, at a time when we needed it most. The railways have done splendid work in handling the crop, and we have had few complaints of shortage of cars. We cannot, with our present facilities, expect much more wheat to be delivered at lake ports before the close of navigation than has been delivered this year, and the need of interior storage for our grain will be urgent for some time to come.

MIXED FARMING

There is a marked increase in the number of live-stock. Farmers are becoming more fully alive to the advantages they derive from this source and are realizing that their borrowing credit is greatly enhanced with their Bankers if they can show a good proportion of cattle in their assets, and banks should look with favor on loans for the purchase and handling of live-stock.

BRITISH COLUMBIA

Trade conditions in British Columbia have not been as bright during the year as we could wish. Conditions in the lumber trade have been unsatisfactory, and coal strikes on Vancouver Island, which have lasted for months, have thrown a great many men out of employment.

The fishing industry has had a good year, and the recent revision of the United States tariff, by which fish now enter that country free, will be of advantage to the trade.

The mining industry has yielded satisfactory returns, a very large increase in the production having taken place over the preceding year.

The fruit crop for 1913 has been a record one, the value of shipments from the Okanagan District alone being in the neighborhood of $1,400,000.

Railroad expansion has been active and about 2,300 miles was under construction during the year.

Stringent money conditions have checked many Municipal undertakings, and this, together with the closing down of lumber camps and completion of railroad work, will add to the number of unemployed during the coming winter.

Large harbor improvements have been undertaken at Victoria which have improved conditions to some extent.

In Eastern Canada, trade conditions have been good, and the crop results have been most gratifying.

PROVINCE OF ONTARIO

Crops have been of a good average and we have again to report a prosperous year.

PROVINCE OF QUEBEC

Along both shores of the St. Lawrence and in the Eastern Townships, conditions were favorable, and abundant crops were harvested in good order.

The lumber trade has experienced a good year, and the removal of the United States duty on lumber should stimulate trade.

MARITIME PROVINCES

Weather conditions have been satisfactory with the result that all crops have been above the average. The fishing industry has also experienced another profitable year.

GENERAL

Good Roads.—The question of good roads is of paramount importance, and there yet remains a great deal to be done. We are glad to be able to report that the Legislatures of the various Provinces are giving their attention to this important question.

Immigration.—Reports continue to be of a satisfactory nature. Approximately 400,000 people have entered Canada during the year ending September, 1913. The immigration authorities report favorably on the class of these new settlers, and estimate them to be worth $1,000 per capita to Canada.

Whilst we believe trade conditions to be on a sound basis, and the financial position of Canada in a most gratifying condition, we still consider that it is the duty of this Bank to exercise caution and to discourage any attempts to undertake large commitments, whilst conditions in Europe are readjusting themselves after the recent disturbance.

FINANCING OF MUNICIPALITIES

From our point of view it is very desirable that the Provincial Governments should take action in regard to moneys required for municipal expenditure. A commission should pass on all issues after expert examination of proposed expenditures. If these issues carried the guarantee of the Province, and were sold under its auspices, they would have a greatly enhanced value, and the saving to the community would be very large, both in the difference of value and in the supervision of expenditure exercised by the Government. Under the present system the initial financing falls upon the Banks because they have to await the sale of debentures, the disposition of which, in turn, often depends upon the ability and knowledge of men who have had little or no experience in financial operations, and who make their sales in a haphazard instead of a systematic manner. In this way, sometimes for indefinite periods, large sums are tied up which should be employed in the general financial operations of the community.

The proposed legislation by the Province of Saskatchewan along these lines is, in my judgment, likely to prove of benefit.

NEW UNITED STATES TARIFF

The recent reduction in the United States tariff should result in obtaining a larger market for our products.

In conclusion, let me say that the figures which have been laid before you must be particularly gratifying to our Shareholders. We are now a large institution, and our growth and strength illustrate, to some extent, the general development of Canada. With your help we shall do our best to keep pace with this progress, and to build up a great Bank, which will be in touch with the needs of the country, and a credit to the whole Dominion.

GENERAL MANAGER'S ADDRESS

The General Manager, Mr. G. H. Balfour, addressed the meeting as follows:

Gentlemen,—Owing largely to the unsettled financial conditions which have obtained throughout the whole world during the year under review, business has not been normal and has caused bankers much anxiety. Conservative administration and caution have been adhered to, and whilst supplying our customers with legitimate requirements, we have aimed at maintaining, at all times, a strong financial position in so far as liquid or immediately available assets are concerned.

The early marketing of the Western grain crops has had an important bearing upon collections in that section of the country in which we have large interests and is reflected in the increased volume of deposits.

Dealing with the figures in the Profit and Loss Account and in the Balance Sheet, I am pleased to say that after making ample provision for all necessary reserves, the net profits show an increase of almost 1 per cent. over those of 1912, being slightly over 15 per cent. on the paid-up capital.

In the opinion of the Directors this result has been deemed sufficiently satisfactory to justify the declaration of a bonus of 1 per cent. in addition to the regular dividend of 8 per cent. (2 per cent. quarterly). This bonus will be paid on the 1st March next to Shareholders of record as on February 14th, 1914.

Owing to the prevailing monetary conditions, prices of securities generally have declined during the year, and it has been considered advisable to set aside the sum of $125,000, out of Profits, to a Special Reserve Account, to meet the depreciation in market values of stocks, bonds and debentures, owned by the Bank as an investment.

$100,000 has been added to Rest Account, which now stands at $3,400,000.

$50,000 has been written off Bank Premises.

The usual contribution of $10,000 has been made to the Officers' Pension Fund.

$90,579.03 is carried to the new Profit and Loss Account, as against $75,483.76 brought forward from 1912.

Some changes will be observed in the classification of figures in the Balance Sheet; these were necessary to comply with the provisions under the revised Bank Act.

Deposits have increased by $8,952,000, which, considering financial conditions, is looked upon as very satisfactory. They now amount to $64,595,288.19.

Our immediately available assets are $25,000,000, or 34.59½ per cent. to liabilities to the public.

Current Loans in Canada have increased by $1,780,000, and now amount to $46,798,969.

Loans and Discounts outside of Canada total $1,640,472, as against $779,000 last year.

Real Estate and other Bank Premises have been reduced by $150,000. Property and buildings acquired for the use of the Bank are now at once charged to Bank Premises.

Mortgages on Real Estate sold by the Bank are larger by $47,000 than a year ago, and overdue debts show an increase of $45,000.

In agricultural districts it is difficult to impress upon the farmer the necessity of attending promptly to his paper at its maturity, especially when weather conditions are favorable to plowing and other agricultural pursuits. Bank Premises have increased $200,000. It is found necessary to erect a number of buildings every year for our own occupation, when suitable premises cannot be leased, every effort being made to provide comfortable accommodation for members of the staff at country branches.

The total assets of the Bank are now over $80,000,000, as against $69,400,000 in 1912, showing a substantial expansion in the growth of the Institution during the year.

PROGRESS OF THE BANK.

During the year three Branches were closed in Ontario.

The total number of Branches and Agencies is now 313, as follows: Alberta, 48; British Columbia, 20; Manitoba, 50; Saskatchewan, 90; Ontario, 89; Quebec, 13; Maritime Provinces, 2; London, Eng., 1.

Since closing of the year, we have also opened a West End Branch in London, Eng., in the Haymarket, corner of Panton Street, and at Smithers, B.C.

In connection with the very satisfactory manner in which the railway companies have carried out the grain from the Western Provinces this year, it may be interesting for you to know that up to December 1st, the following quantities of grain have passed Winnipeg for the head of the Great Lakes, namely, 99,000,000 bushels wheat, 32,500,000 bushels oats, 9,500,000 bushels barley, and 6,500,000 bushels flax.

Before sitting down I desire to bear testimony to the efficiency and loyalty of the Staff, not only of the Executive Officers, but the whole Staff of the Bank, to whose energy and ability much of the success which has attended the operations of the past year is due.

Mr. Geo. H. Thompson, the Vice-President, seconded the adoption of the Report, which was carried.

AUDITORS.

Messrs. T. Harry Webb, C.A., E. S. Read, C.A., and C. R. Hegan, C.A., were elected as Auditors of the Bank.

The ballot was unanimous, and these gentlemen were declared elected.

It was moved by Hon. W. H. Montague, P.C., seconded by Mr. E. H. Riley, of Calgary, that the thanks of the Shareholders are hereby tendered to the Honorary President, President, Vice-Presidents and the Directors of the Bank for their valuable services during the year.—Carried.

Mr. G. H. Balfour, General Manager; Mr. E. O. Denison, of Minnedosa, and Mr. H. J. Pugh, of Virden, replied briefly on behalf of the Staff.

The Scrutineers reported the following gentlemen elected as Directors for the ensuing year: Messrs. Wm. Price, John Galt, R. T. Riley, Geo. H. Thomson, E. L. Drewry, F. E. Kenaston, W. R. Allan, M. Bull, Hon. Samuel Barker, P.C., M.P., E. E. A. Duvernet, K.C., Stephen Haas, Lt.-Col. John Carson, F. W. Heubach, B. B. Cronyn, Wm. Shaw. The meeting then adjourned.

At a subsequent meeting of the newly elected board, Mr. Wm. Price was elected Honorary President; Mr. John Galt, President; Mr. R. T. Riley and Mr. Geo. H. Thomson, Vice-Presidents.



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Your insurance agent can tell you the exact amount our "IMPERIAL" Extinguishers will save you.

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FOR SALE.

Patent right for sale on an adjustable chair attachment to change an ordinary chair to a medium or high chair, in Canada. Frank Duerst, Wiggins, Colo., U.S.

FOR SALE.

One second-hand Robb engine, 35 horse-power, and one second-hand Monarch boiler, 35 horse-power. Address Messenett & McDougall, St. George, New Brunswick.

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of December, 1913.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload lots; L.C.L., less than carload lots.)

Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective	Description.
Sup. 34 E 2141	Sup. 34 E 1737	Dec. 15-13	Reshipping, stop-off and special arrangements. Advance. Reduction.
Sup. 63 E 2492	Sup. 63 E 2092	Nov. 18-13	Commodities between points in Eastern Canada. Reduction.
E 2702 cancels E 2346	E 2319 cancels E 1946	Dec. 15-13	Class rates between C.P. stations and connecting lines and to points on Temiscouata Ry. Advance. Reduction.
E 2704 cancels E 2007	E 2321 cancels E 1608	Dec. 15-13	Class rates from C. P. stations east and south of Montreal to I. C. Ry. stations. Advance. Reduction.
Sup. 28 E 1575	Sup. 28 E 1161	Nov. 25-13	Arbitraries of connecting lines east and south of Montreal. Reduction.
Sup. 15 E 2529	Sup. 15 E 2133	Dec. 24-13	Commodities C. P. stations to points in U.S. Reduction.
Sup. 2 E 2646	Sup. 2 E 2262	Dec. 2-13	Local switching and interswitching. Advance. Reduction.
Sup. 10 E 2189	Sup. 10 E 1785	Nov. 24-13	Commodities C. P. stations to St. John, N. St. John and Halifax. Reduction.
Sup. 5 E 2643	Sup. 5 E 2259	Dec. 5-13	Pig iron C.L. between C. P. stations.
Sup. 24 E 2359	Sup. 24 E 1959	Dec. 8-13	Paper commodities between C.P. stations and to connecting lines.
Sup. 85 E 2492	Sup. 85 E 2092	Dec. 5-13	Commodities between C. P. stations.
Sup. 5 E 2646	Sup. 5 E 2262	Dec. 15-13 (R) Jan. 12-13 (A)	Switching and interswitching at C. P. stations.
Sup. 3 E 2646	Sup. 3 E 2252	Dec. 29-13	Switching and interswitching. Reduction.
E 2713 cancels E 2492	E 2320 cancels E 2092	Jan. 1-14	Commodities between stations on C. P. R. Advance. Reduction.

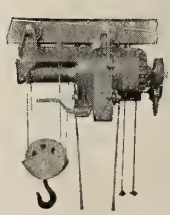
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All types and sizes of Electric or Hand Cranes, Electric Hoists, Air Hoists, Foundry Equipment, &c.

Made in a Modern Canadian Plant.



NORTHERN CRANE WORKS LIMITED
WALKERVILLE, ONTARIO

Grand Trunk Railway.

Sup. 4 E 2696	Sup. 4 I. 144	Dec. 31-13	Import freight, Portland, Me., to points in Canada.
Sup. 49 E 150	Sup. 49 G.B.Y. 5	Dec. 28-13	Iron commodities, Hamilton to Toronto. Reduction.
Sup. 50 E 150	Sup. 5 G.B.Y. 5	Dec. 1-13	Wire rods, c.l., Hamilton to St. Catharines, Ont.
E 2855 cancels E 2644	C.Y. 31 cancels C.Y. 27	Jan. 1-14	Commodities between G. T. stations and from and to connecting lines. Advance. Reduction. Reissue.
Sup. 93 E 2644	Sup. 93 C.Y. 27	Nov. 21-13	Crude iron ore, Jacques Cartier Jct. to Belleville, $1.40 per gross ton. Reduction.
Sup. 48 E 150	Sup. 48 G.B.Y. 5	Nov. 18-13	Iron commodities, Berlin, Brantford, London, etc., to G. T. stations and connecting lines. Reduction.
E 2848 cancels E 2525	J. 8 cancels J. 7	Dec. 15-13	Class rates, stations east and south of Montreal to stations on Temiscouata and Intercolonial Railways.
Sup. 11 E 1928	Sup. 11 C.O. 61	Dec. 10-13	Canned goods C. L. stations in Ontario to points on G.T. and connecting lines.
Sup. 5 E 2709	Sup. 5 C.R. 145	Dec. 1-13	Weighing of C.L. traffic and allowance from track scale weights.
Sup. 2 E 2758	Sup. 2 C.J. 75	Jan. 1-13	Commodities from Buffalo, Black Rock and Susp. Bridge to points on G.T. Ry.
Sup. 51 E 150	Sup. 51 G.B. 75	Dec. 5-13	Skelp iron or steel C.L. Guelph to London, 8c. per 100 lbs.
Sup. 5 E 2696	Sup. 5 I 144	Jan. 3-14	Import freight from Portland, Me., to points in Canada.
Sup. 11 E 2379	Sup. 11 E 40	Jan. 6-14	Classes and commodities stations in Canada to New York, Philadelphia, etc., for export.
Sup. 4 E 2783	Sup. 4 C.I. 145	Dec. 9-13	Pig iron C.L., Hamilton, Midland and Port Colborne to Westport, Ont., $4 per gross ton.



Good Bags This Fall.

—Vancouver Sun.

The Canadian Bank of Commerce

Statement of the result of the business of the Bank for the year ending 29th November, 1913.

Balance at credit of Profit and Loss Account, brought forward from last year	$ 771,578 88
Net Profits for the year ending 29th November, after providing for all bad and doubtful debts.	2,992,951 10
	$ 3,764,529 98
This has been appropriated as follows:	
Dividends Nos. 104, 105, 106 and 107, at ten per cent. per annum	$ 1,500,000 00
Bonus of one per cent. payable 1st June	150,000 00
Bonus of one per cent. payable 1st December.	150,000 00
Written off Bank Premises	500,000 00
Transferred to Pension Fund (annual contribution)	80,000 00
Transferred to Rest Account	1,000,000 00
Balance carried forward	384,529 98
	$ 3,764,529 98

GENERAL STATEMENT

29th November, 1913.

LIABILITIES.

Notes of the Bank in circulation		$15,642,923 18
Deposits not bearing interest	$52,798,205 84	
Deposits bearing interest, including interest accrued to date	140,015,509 40	
		192,813,715 24
Balances due to other Banks in Canada		633,237 12
Balances due to Banks and Banking Correspondents elsewhere than in Canada		10,071,316 73
Bills payable		9,515,787 65
Acceptances under Letters of Credit		1,941,544 19
		$230,618,524 11
Dividends unpaid		2,666 48
Dividend No. 107 and bonus payable 1st December.		525,000 00
Capital paid up	$15,000,000 00	
Rest	13,500,000 00	
Balance of Profit and Loss Account carried forward	384,529 98	
		28,884,529 98
		$260,030,720 57

ASSETS.

Current Coin and Bullion	$ 9,579,473 66	
Dominion Notes	20,836,182 50	
		$30,415,656 16
Balances due by Banks and Banking Correspondents elsewhere than in Canada	$ 6,884,652 83	
Balances due by other Banks in Canada	22,122 47	
Notes of other Banks	3,106,230 00	
Cheques on other Banks	6,418,425 14	
		16,431,430 44
Call and Short Loans in Canada on Bonds, Debentures and Stocks		9,610,550 08
Call and Short Loans elsewhere than in Canada		16,154,360 65
Dominion and Provincial Government Securities		3,434,605 06
British, Foreign and Colonial Public Securities and Canadian Municipal Securities		2,431,989 71
Railway and other Bonds, Debentures and Stocks.		18,091,224 04
Deposit with the Minister for the purposes of the Circulation Fund		738,500 00
		$ 97,308,316 14
Other Current Loans and Discounts in Canada (less rebate of interest)		136,474,874 82
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest)		18,102,015 15
Overdue Debts (estimated loss provided for)		487,554 72
Real Estate (including the unsold balance of former premises of the Eastern Townships Bank)		979,915 61
Mortgages on Real Estate sold by the Bank		433,607 32
Bank Premises		4,281,481 60
Other Assets		21,411 02
Liabilities of customers under Letters of Credit, as per contra		1,941,544 19
		$260,030,720 57

B. E. WALKER, President.
Z. A. LASH, Vice-President.
ALEXANDER LAIRD, General Manager.

THE CANADIAN BANK OF COMMERCE

SIR EDMUND WALKER, C.V.O., LL.D., D.C.L., President

ALEXANDER LAIRD, General Manager

JOHN AIRD, Assistant General Manager

Capital - - $15,000,000
Rest - - $12,500,000

TRAVELLERS' CHEQUES

The Travellers' Cheques issued by this Bank are a most convenient form in which to carry money when travelling. They are issued in denominations of

$10, $20, $50, $100 and $200

and the exact amount payable in **Austria, Belgium, Denmark, France, Germany, Great Britain, Holland, Italy Norway, Russia, Sweden** and **Switzerland** is stated on the face of each cheque, while in other countries they are payable at current rates.

The cheques and all information regarding them may be obtained at every office of the bank.

THE ROYAL BANK OF CANADA

Incorporated 1869

Capital Authorized . . . $25,000,000
Capital Paid up $11,560,000
Reserve & Undivided Profits $13,000,000
Total Assets $180,000,000

HEAD OFFICE, MONTREAL

BOARD OF DIRECTORS

H. S. Holt, President E. L. Pease, Vice-President
E. F. B. Johnston, K.C., 2nd Vice-President

Wiley Smith, Hon. D. MacKeen, Jas. Redmond, G. R. Crowe, D. K. Elliott, W. H. Thorne, Hugh Paton, T. J. Drummond, A. E. Dyment, Wm. Robertson, A. J. Brown, K.C., W. J. Sheppard, C. S. Wilcox

OFFICERS

E. L. Pease, General Manager
C. E. Neill and F. J. Sherman, Asst. Gen.-Managers
W. B. Torrance, Supt. of Branches

Branches in every Province of the DOMINION OF CANADA and in NEWFOUNDLAND; in HAVANA and throughout CUBA, Porto Rico and Dominican Republic; BAHAMAS, Nassau; BARBADOS, Bridgetown; JAMAICA, Kingston; TRINIDAD, Port of Spain and San Fernando; BRITISH HONDURAS, Belize.

LONDON, ENG., OFFICE—Princes St., E.C.

NEW YORK AGENCY — Corner William and Cedar Sts

Savings Department at All Branches

C.R.C.	R.R. No.	Effective	Description.
E 2841 cancels E 2782	S 93 cancels S 91	Dec. 6-13	Terminal arrangements at Guelph. Reissue.
Sup. 15 E 2677	Sup. 15 S 88	Dec. 22-13	Local switching at Peterboro. Advance.
E 2863 Cancels E 1457	C 42 Cancels C 20	Jan. 9-14	Class rates between stations south and east of Montreal and station on C.N.R. via Hawkesbury.
Sup. 5 E 2783	Sup. 5 C.I. 146	Jan. 12-14	Pig iron C.L. Port Colborne, Ont., to New Glasgow, N.S., $4.15 per ton. Advance.
Sup. 6 E 2783	Sup. 6 C.I. 146	Dec. 14-13	Pig iron C.L. Hamilton to Owen Sound, $1.35 per gross ton.
Sup. 13 E 2457	Sup. 13 S 86	Jan. 15-14	Interswitching at G.T. stations.

Michigan Central Railroad.

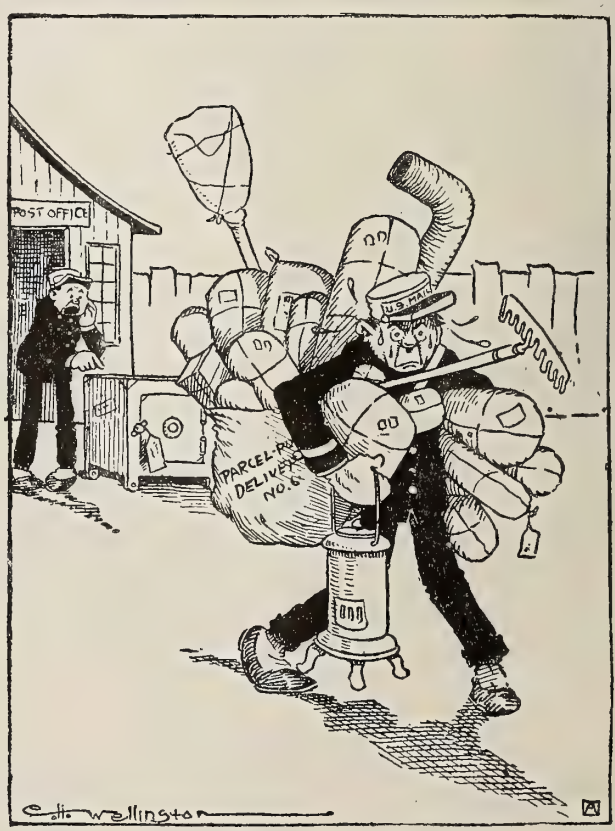
Sup. 31 1351	Sup. 31 7766	Nov. 27-13	Iron and steel, London, Windsor, Welland, etc., to points in Canada.
Sup. 24 1751	Sup. 24 8764	Dec. 24-13	Commodities, Buffalo, Black Rock and Suspension Bridge, to points in Canada.
Sup. 2 2049	Sup. 2 9353	Jan. 15-14	Commodities between stations in Canada.

Baltimore & Ohio Railroad.

Sup. 19 872	——— ———	Dec. 19-13	Billets, pig iron, etc., to points in Canada.

CLOTHING MANUFACTURE.

A new book entitled "Scientific Dressmaking and Millinery" has been published by Miss Isabella Innes, Principal of the Costumer's Art School, Toronto, dealing with the manufacture of clothing.



And the Worst is Yet to Come.
—Toronto World.

FORTY-FOURTH ANNUAL STATEMENT

OF

The Royal Bank of Canada

LIABILITIES

TO THE PUBLIC:

Notes of the Bank in Circulation		$ 13,176,634.69
Deposits bearing interest, including interest accrued to date	$101,900,790.87	
Deposits not bearing interest	36,276,871.60	
		138,177,662.47
Deposits by other Banks in Canada	$ 405,669.90	
Deposits by Banks and Banking Correspondents elsewhere than in Canada	1,649,466.73	
		2,055,136.63
Bills Payable		990,899.59
Acceptances under Letters of Credit		361,106.66
		$154,761,440.04

TO THE SHAREHOLDERS:

Capital Stock Paid-up		11,560,000.00
Reserve Fund	$12,560,000.00	
Balance of Profits carried forward	1,015,119.58	
		13,575,119.58
Dividend No. 105 (at 12 per cent. per annum), payable Dec. 1st, 1913	$ 346,800.00	
Dividends Unclaimed	3,426.11	
		350,226.11
		$180,246,785.73

ASSETS

Current Gold and Silver Coin	$ 7,802,067.72	
Dominion Government Notes	11,664,142.00	
	$19,466,209.72	
Deposit in the Central Gold Reserves	2,000,000.00	
Deposit with Dominion Government for the purposes of the Circulation Fund	578,000.00	
Notes of other Banks	2,576,878.07	
Cheques on other Banks	6,566,249.32	
Due by other Banks in Canada	1,160.12	
Due by Banks and Banking Correspondents elsewhere than in Canada	3,603,452.05	
Dominion and Provincial Government Securities, not exceeding market value	1,127,312.91	
Canadian Municipal Securities and British, Foreign and Colonial Public Securities other than Canadian, not exceeding market value	2,081,533.53	
Railway and other Bonds, Debentures and Stocks, not exceeding market value	14,565,306.32	
Call and Short Loans in Canada, on Bonds, Debentures and Stocks	9,002,193.01	
Call and Short Loans elsewhere than in Canada	10,817,496.66	
		$72,385,791.71
Loans to Provincial Governments	$ 247,435.89	
Loans to Cities, Towns, Municipalities and School Districts	3,686,624.08	
Other Current Loans and Discounts (less rebate of interest)	98,606,925.14	
Overdue Debts (estimated loss provided for)	175,673.57	
		102,716,658.68
Bank Premises, at not more than cost, less amounts written off		4,783,228.68
Liabilities of Customers under Letters of Credit, as per contra		361,106.66
		$180,246,785.73

PROFIT AND LOSS ACCOUNT

Balance of Profit and Loss Account, 30th November, 1912	$ 610,219.36	
Profits for the year, after deducting charges of management and all other expenses, accrued interest on deposits, full provision for all bad and doubtful debts and rebate of interest on unmatured bills	2,142,100.22	
		$2,752,319.58

APPROPRIATED AS FOLLOWS:

Dividends Nos. 102, 103, 104 and 105, at 12 per cent. per annum	$1,387,200.00	
Transferred to Officers' Pension Fund	100,000.00	
Written Off Bank Premises Account	250,000.00	
Balance of Profit and Loss carried forward	1,015,119.58	
		$2,752,319.58

EDSON L. PEASE,
General Manager.

THE CONSTITUTIONAL FACTORY IN GERMANY

From an Article Recently Published in "The Weekly Scotsman."

German manufacturers will soon be face to face with one of the most important turning points in the history of their country's industrialism. At the next Congress of the Manufacturers' Association—an organization including most of the great magnates, whose efforts have placed Germany in the very forefront of the world's trade—a vote is to be taken upon the question whether or not the "constitutional" factory shall be approved or condemned. If it is approved the great factories of Germany will enter upon one of the most momentous and interesting experiments in the annals of business; and if it is condemned there will be a life and death struggle between the supporters of the constitutional factory and its enemies—a struggle invclving many millions of the workers of the Fatherland, as well as most of the big employers of labor.

Origin of the Idea.

The notion of the constitutional factory, and the phrase itself first came to the brain of Herr Heinrich Freese when pondering on the way in which political constitutionalism has solved the secular opposition between rulers and the ruled. Herr Freese has the means of putting his theories to the test. He is a wealthy man, the largest manufacturer in Germany of Venetian blinds and of wood pavements, and the employer of thirteen thousand men in his factories at Hamburg, Breslau and Niederschoenhausen. In Germany his industry is a very important one, as practically every German window has Venetian blinds.

Herr Freese reasoned that the vice of the present relation between employers and employed is that the employer is still practically an autocrat. Against the autocrat-employer the worker has no resource. Striking or throwing up one's job are unsatisfactory expedients which help the worker no more than the right to emigrate to a free country helps the population of a despotically ruled state. Real political stability, says Herr Freese, was first attained by a self-limitation of monarchical power. The factory and workshop must be pacified on this principle. The employer must pledge himself to do certain things and not to do certain other things. But he must go further. By analogy with the constitutional state, he must create machinery which will guarantee the keeping of his pledges.

A Workmen's Parliament.

A workmen's Parliament is necessary in every factory, and it must not be a mere debating society, but must have executive and prohibitory powers in certain matters of moment concerning workers and masters.

Herr Freese declares that the analogy between the state and the factory must be carried out in all respects. European constitutionalism and not pure democracy is what he aims at. Just as in the state, certain branches of government, such as diplomacy and national defence, are reserved to the monarch, so in the constitutional factory the employer must retain his authority in several domains. Among these are technical questions; the control of sale and purchase prices, also everything connected with the accountancy. But the general relations of employer to employed, wages, hours of labor, overtime, provisions against accidents, and fining are matters on which, by analogy with the state, no change should be made without consent of both the employees' Parliament and the employer. Herr Freese declares that he makes no

Continued on page 805.

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

884. **Windmills.**—A South Africa importer would like to correspond with Canadian exporters of windmills. Catalogues and prices requested.

885. **Agricultural Machinery.**—Inquiries are made by a South African firm for catalogues and prices on Canadian-made agricultural machinery.

886. **Dairy Implements.**—An Orange Free State firm requests catalogues and prices on Canadian-made dairy implements.

887. **Dairy Machinery.**—A South African firm solicits correspondence and prices on Canadian-made dairy machinery.

888. **Paper Bags.**—Samples and prices are requested by a South African importing house.

889. **Carriage and Cart Material.**—A South African firm would like to be put in touch with Canadian exporters and manufacturers of carriage and cart material.

890. **Woodenware.**—A South African importing house requests catalogues and prices on Canadian woodenware.

891. **Handles.**—A South African firm makes inquiry for catalogues and prices on Canadian-made handles.

892. **Paper Bags.**—Samples and prices are requested by a Kimberley importing house.

893. **Shovels.**—A Kimberley firm makes inquiry for catalogues and prices of shovels.

894. **Stepladders.**—A South African importing house makes inquiry for catalogues and prices on Canadian-manufactured stepladders.

895. **Brushware.**—Inquiries are made by a South African importer for catalogues and prices on Canadian brushware.

896. **Chairs.**—A Cape Town firm asks to be placed in touch with manufacturers and exporters of Canadian-made chairs.

897. **Wire.**—Samples and prices are requested by a South African importer.

898. **Sideboards.**—A Cape Town commission firm will take up agency in sideboards of Canadian manufacture.

899. **Organs.**—A South African firm of commission agents will take up agency for Canadian organs.

900. **Washing Machines.**—A South African firm of commission agents will take up agency for Canadian washing machines.

901. **Wheelbarrows.**—A South African firm of contractors requests illustrations and quotations on Canadian-made wheelbarrows.

902. **Maple Skewers.**—A South African firm dealing in butchers' supplies only, requests samples and quotations on maple skewers, 6, 7, 8, 9 inches.

903. **Wrapping Paper.**—Samples and prices are requested on Canadian wrapping paper by a South African firm.

904. **Carriage Parts, Hubs, Spokes, Rims and Shafts.**—A South African importer asks for quotations on Canadian-made carriage parts.

905. **Household Hardware.**—A South African firm asks to be placed in communication with Canadian manufacturers and exporters of household hardware.

attempt to deny the natural conflict of interests between employer and employed. The constitution exists to regulate matters of common interest; and in matters of natural opposition to bring about compromises, and to prevent breaches.

Like a Political Parliament.

Herr Freese's Workers' Parliament resembles in detail a political Parliament. It holds regular sessions to discuss matters concerning conditions of employment, and when special matters arise it convokes extraordinary sessions. The general election is annual, and it is preceded by the rendering of a report by the chief officers of the expiring Parliament. The sessions are public, so that non-members may attend and see what their representatives are doing. Non-members have the right to send in complaints and petitions, but the Parliament is free to discuss what it chooses, and cannot be terrorized or dictated to by the workmen outside.

Herr Freese has published an account of 200 sessions of his Parliament, at all of which he was present as sovereign or minister. The Parliament proved a success. Without in any way injuring the employer's interests, it enabled agreements to be come to which materially improved the lot of the employees. It practically did away with the system of fining, a system very common in German industry. It legislated on proposals to work overtime when business was good, and on proposals to shorten hours when business was bad. It came to a compromise with Herr Freese providing for a general reduction of hours; and to-day the Freese factories have an eight hours' working day. This—except in one class of coal mines—is absolutely unknown in German industry. The financial position of the factories did not suffer.

Profit-Sharing.

The constitutional system enables Herr Freese to enter upon a practicable system of profit-sharing. Herr Freese had been in the habit of giving bonuses to his official and clerical staff. He now agreed to extend the bonuses to the men. The workmen were here given the usual constitutional "power of the purse," inasmuch as the Parliament was allowed to satisfy itself through an auditor that the bonuses were paid on the real profits. Finally Herr Freese made his periodical "speeches from the throne," in which he expounded to his Parliament the position of the factory, of business generally, and of prospects for the future.

Herr Freese's Parliament has unlimited control over all the factory's social and charitable institutions. The Parliament further runs with success the factory baths, sports' grounds, and fire brigade, and it organizes the factory's annual festival.

The trouble of the constitutional factory, as experience soon showed, is not in the notion itself, but in the suspicion and dislike which it awakens outside. Herr Freese has had trouble with both the organizations of employers and the organizations of employed. Both are well organized, combative and distrustful.

Socialist Opposition.

The trades unions, which are nearly all in the hands of the Social Democratic party, began a campaign against the constitutional factory. Their campaign was natural enough, because Herr Freese's wish is to spread content, and the Socialists admit that they do not want content, even if it is brought about by an amelioration of the workers' lot. Herr Freese is assailed as a dishonest man, whose aim is to bribe his men out of their "healthy dissatisfaction."

The Founder Perseveres.

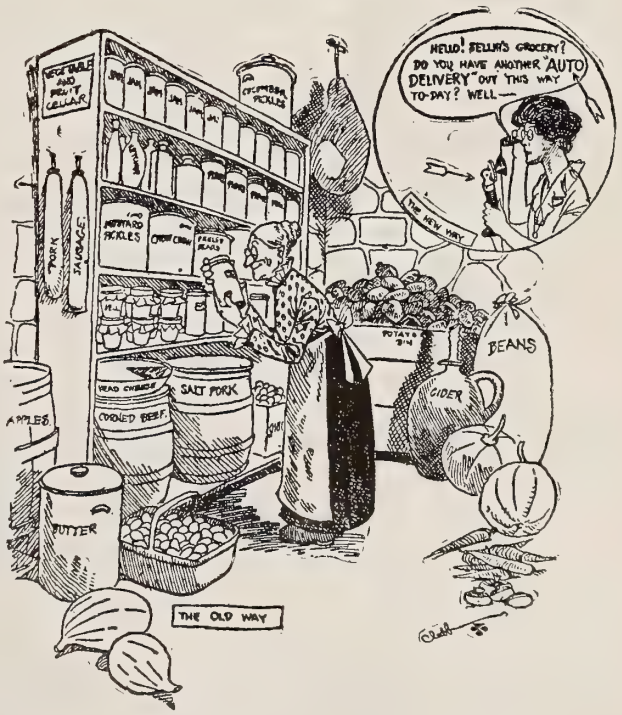
Despite his one bad experience, Herr Freese is continuing his constitutionalism. He boasts that for twenty-eight years it has succeeded, and has enabled him to pay higher wages, to reduce the working day to eight hours, and to divide profits.

The same experiment is being tried in two factories of Silesia. Herr Gellius, one experimenter on a small scale, has followed Herr Freese's example inasmuch as after a struggle he drove the oppositional Socialists out of his Parliament. Herr Gellius reports that the principle of a sharing of authority between employer and employed is one of the most fruitful. "In four years it enabled me to create general content, to reduce the working day by 1¾ hours, to increase daily wages by 17 per cent and piece-work pay by 21½ per cent." All this was done without any sacrifice of profits. Naturally, other manufacturers are being shaken by these results in their opposition to industrial constitutionalism.

CANADA'S FORESTRY RESERVES.

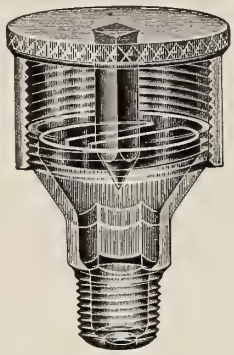
The Dominion forest reserves are, approximately, thirty-six thousand square miles in extent. On these reserves, especially in the Rocky Mountains, are considerable areas of grass land, which by the new Forest Reserve Regulations will be made available to western cattle-owners under suitable restrictions. As yet, few or no cattle have been pastured on these reserves, but the possibilities of this new range will be understood from the fact that more than 20,000,000 head of cattle grazed on the national forests of the United States during the last fiscal year. If only one million cattle were grazed on Dominion reserves at the minimum charge of twenty-five cents per head, the Dominion Forestry Branch would derive an annual revenue of at least $250,000 from this source alone, while the stimulus these regulations will undoubtedly give to stock-raising should eventually result in cheaper meat to the Canadian consumers.

THE HIGH COST OF LIVING



Maybe the new way has something to do with the high cost of living.
—Rochester Herald.

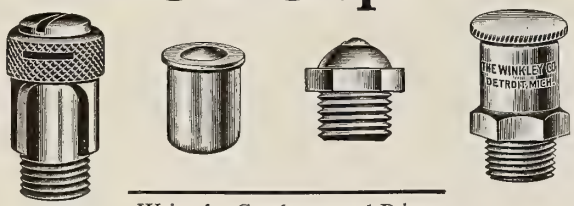
TRADE WINKLEY MARK



Grease Cups

We Manufacture a Full Line of Plain, Compression Leather Washer and Ratchet Grease Cups in any finish required.

Complete Oil Cups Line



Write for Catalogue and Prices

Manufactured by

Canadian Winkley Co. LIMITED

Windsor, Ont.

Are You Sure Your Electrical Wiring is Safe?

There is but one absolutely safe method of wiring. Instal a CONDUIT SYSTEM, it will eliminate all risk of Fire.

"Galvaduct" & "Loricated" "Conduits" HAVE NO EQUALS

Conduits Company Limited

TORONTO *MONTREAL*

906. **Agricultural Implements.**—A South African importer asks for catalogues and prices on Canadian agricultural implements.

907. **Machinery, All Kinds, Power and Hand.**—A South African importer would like to be placed in communication with Canadian manufacturers and exporters of Canadian-made machinery of all kinds.

908. **Flour.**—Samples and prices are asked for by a South African importer on Canadian flour.

909. **Handles, All Kinds.**—A South African firm of hardware importers asks to be placed in touch with Canadian manufacturers and exporters of handles.

910. **Asbestos.**—A firm of Newcastle-on-Tyne desires the addresses of Canadian exporters of asbestos.

911. **Ash Oars.**—A Glasgow firm asks to be put in touch with makers of ash oars.

912. **Box Shooks.**—A Cape Town firm asks to be placed in communication with Canadian manufacturers and exporters of box shooks.

913. **Spruce Lumber.**—A Cape Town firm asks for prices on Canadian spruce lumber, 3 inches thick, 6 inches, and up, wide.

914. **Carriage Parts, Hubs, Spokes, Rims and Wheels.**—A Cape Town importer asks for catalogues and prices on carriage parts of Canadian manufacture.

915. **Fencing Wire.**—An inquiry is made by a Cape Town firm for samples and prices on Canadian fencing wire.

916. **Galvanized Wire Field Gates.**—Inquiry is made by a Cape Town firm for catalogues and prices on Canadian-made galvanized wire field gates, 1 1-4 or 1 3-8 tubes, 4 feet high, 2, 4, 8, 10, 12, 15 feet long.

917. **Organs.** A South African importer wishes to correspond with Canadian manufacturers and exporters of organs.

918. **Agricultural Machinery.**—A South African importer asks for catalogues and prices on Canadian-made agricultural machinery.

919. **Agricultural Implements.**—Inquiry is made by a Cape town firm of importers for catalogues and prices on Canadian agricultural implements.

920. **Dairy Machinery.**—A South African importer wishes to be placed in communication with Canadian manufacturers and exporters of dairy machinery.

921. **Lightning Conductors.**—A South African firm in direct touch with farming community of South Africa is open for negotiations with manufacturers of lightning conductors, and asks for sample set, such as are used by salesmen in Canada in demonstrating.

922. **Dairy Machinery and Implements.**—A South African importer wishes to be placed in touch with Canadian exporters of dairy machinery and implements.

923. **Organs.**—A South African importer asks for quotations and catalogues on Canadian-made organs.

924. **Doors.**—A South African importer makes inquiry for prices on Canadian-made doors.

925. **Windows.**—A Port Elizabeth firm of importers asks to be put in touch with Canadian exporters of windows.

926. **Tables.**—A South African importer wishes to correspond with Canadian exporters and manufacturers of tables.

927. **Shovels.**—A Port Elizabeth firm of merchants asks for catalogues and prices on Canadian-made shovels.

928. **Chairs.**—Inquiry is made by a South African importer for prices and catalogues on chairs of Canadian manufacture.

SERVICEABLE **TAPS** ECONOMICAL

BUTTERFIELDS TAPS

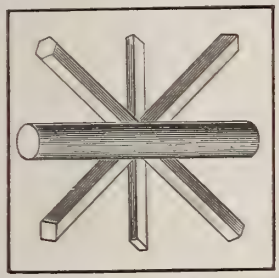
ARE GUARANTEED TO BE BOTH.



AND MORE—
THEY ARE ACCURATE
AND CLEAN CUTTING

If you are not satisfied with the TAPS you are using, try BUTTERFIELDS. If they do not prove to be all we claim for them, we will refund your money. Fair, isn't it?

BUTTERFIELD & CO., ROCK ISLAND QUE. CANADA



COLD DRAWN, TURNED AND POLISHED STEEL

SHAFTING

ROUNDS, SQUARES, HEXAGONS AND FLATS

$\frac{1}{4}$ in. to 6 in. Dia. $\frac{1}{4}$ in. to 2 in. $\frac{1}{4}$ in. to $2\frac{1}{4}$ in. up to $1\frac{1}{2}$ in. $2\frac{1}{2}$ in.

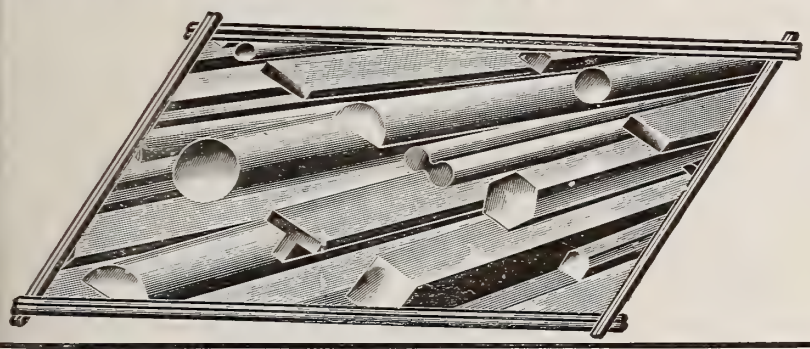
FREE CUTTING SCREW STOCK, PISTON AND PUMP RODS

The CANADIAN DRAWN STEEL CO., Limited

HAMILTON, ONTARIO

UNION DRAWN STEEL CO., Limited

HAMILTON, ONTARIO



MANUFACTURERS OF

Shafting

Rounds, Flats, Squares and Hexagons

LARGEST STOCK IN CANADA

Get prices before ordering elsewhere.



REDUCE HANDLING EXPENSE

With an "R-W"

Overhead Carrying System

REDUCE YOUR INSURANCE

By using

"R-W" LABELLED FIRE-DOOR FIXTURES

CATALOGS ON REQUEST

The ONE RIGHT WAY to hang a heavy sliding door is on R-W Trolley Hangers

Richards-Wilcox

CANADIAN COMPANY, LTD. LONDON, ONTARIO.



MADE IN CANADA

Canadian Hart Wheels

CUT FASTER LAST LONGER

Than any other wheels on the market

Tell us the service you want performed and we will supply you with an abraser that will save you time, money and worry.

Send for one of our catalogues and tell us your troubles. We do the rest. :: :: :: ::

CANADIAN HART WHEELS LIMITED

450 BARTON ST. EAST

Hamilton :: :: :: Ontario

BROWN BROS. LIMITED

Manufacturing Stationers

51-53 Wellington St. W. - TORONTO

We Manufacture and Keep in Stock

ACCOUNT BOOKS

Every Size and Kind

Loose Leaf Ledgers and Binders
Sheets and Specialties
Memo and Price Books
Diaries---Office and Pocket
Fine Leather Goods
Ladies' Hand Bags, Bill Cases
PAPER, OFFICE STATIONERY

929. **Cheap Furniture.**—A South African importer asks to be put in touch with Canadian exporters of cheap furniture in knock-down state.

930. **Cheap Tables.**—Inquiry is made by a South African importer for catalogues and prices on Canadian cheap tables.

931. **Extension Tables.**—A South African importer asks to be placed in communication with Canadian exporters of extension tables.

932. **Axes.**—A South African importer asks to be placed in communication with Canadian exporters of axes.

933. **Doors.**—A South African importer wishes to communicate with Canadian exporters of doors.

934. **Windows.**—Inquiry is made by a Port Elizabeth firm for prices on Canadian-made windows.

935. **Agricultural Machinery and Implements.**—Inquiry is made by a Port Elizabeth firm of general merchants for catalogues and prices on Canadian-made agricultural machinery and implements.

936. **Handles.**—A South African importer asks for catalogues and prices on Canadian-made handles of all kinds.

937. **Cheap Furniture.**—A South African merchant makes inquiry for catalogues and prices on Canadian-made cheap furniture.

938. **Furniture.**—Inquiry is made by a South African merchant for catalogues and prices on Canadian furniture in knock-down state.

939. **Condensed Milk.**—Inquiry is made by a South African merchant for samples and prices on Canadian condensed milk in 7½ ounce and 14 ounce tins, sweetened.

940. **Ploughs and Parts.**—Catalogues and prices are asked for by a South African importer.

941. **Condensed Milk.**—A South African importer wishes to get into touch with Canadian exporters of condensed milk.

942. **Formaldehyde.**—A South African firm of merchants and engineers asks for quotations on Canadian formaldehyde.

943. **Sounding Boards for Pianos.**—A Bristol firm, very large buyers of pine and spruce, would be glad to get in touch with Canadian firms that make sounding boards for pianos, in which this firm does a very large business.

944. **Binder Twine.**—Samples and prices are asked for by a South African importing house.

945. **Canned Goods.**—Samples, if possible, and prices are asked for on Canadian-canned goods by an East London firm of importers.

946. **Apples, Evaporated.**—A South African importing house wishes to be put in touch with Canadian exporters of evaporated apples.

947. **Churns.**—A South African importer asks for prices and catalogues on Canadian-made churns.

948. **Corn and Wheat.**—A Lisbon firm giving excellent references desires to correspond with Canadian exporters of corn and wheat.

Dominion Bridge Company, Limited

Head Offices and Works:
MONTREAL

Branch Offices and Works:
TORONTO, OTTAWA, WINNIPEG

CAPACITY 100,000 TONS

ENGINEERS AND CONTRACTORS

Steel Buildings of all Kinds
Railway and Highway Bridges
Swing and Bascule Spans
Turntables, Electric Cranes
Hoisting Appliances, Lift Locks
Hydraulic Regulating Gates, etc.

LARGE STOCK OF STANDARD STRUCTURAL MATERIAL AT ALL WORKS

THE CANADIAN BRIDGE CO., Limited

WALKERVILLE, ONTARIO

MANUFACTURERS

RAILWAY AND HIGHWAY BRIDGES

Locomotive Turn Tables. Roofs, Steel Buildings and Structural Iron Work of all Descriptions

STRUCTURAL STEEL For Every Purpose

Estimates Furnished Promptly for all Classes of Steel Bridges, Buildings, Towers, etc., etc.

5,000 Tons Standard Structural Shapes Carried in Stock for Quick Delivery.

STRUCTURAL STEEL COMPANY, LIMITED

MONTREAL

NATIONAL BRIDGE CO.

OF CANADA, LIMITED

Designers, Fabricators and Erectors of Structural Steelwork for Bridges and Buildings of Every Description

ANNUAL CAPACITY, 20,000 TONS

6,000 tons of Beams, Channels, Angles, Plates, Flats and Bars always in stock at our works for QUICK DELIVERY, plain or fabricated. Designs and Estimates promptly furnished.

Main Office and Works - - - - - - MONTREAL, QUE.

Oxy-Acetylene Talk — No. 1

Mr. Engineer

When it breaks—have it welded! you will save time, temper and money this way!

Mr. Manufacturer

When your customers ask for "Welded" articles—what do you offer?

No RIVETS, no LEAKS, no TROUBLE!

Better see about your outfit! Our booklet explains, write at once.

L'Air Liquide Society

TORONTO, BOLER ST.
MONTREAL, 1 ERNEST ST.

The Montreal Lithographing Company, Limited

High Class Lithographers and Designers of

CALENDARS SHOW CARDS
LABELS OFFICE STATIONERY
ADVERTISING PLAYING CARDS

Office and Works
ONTARIO STREET & PAPINEAU AVENUE
MONTREAL, CANADA

AMONG THE INDUSTRIES

A business block is being built for F. W. Carling, Ottawa, cost $100,000.

Geo. H. Rillett, Hamilton, Ont., is building warehouse; cost, $16,000.

W. E. Seagrave is building a factory costing $6,000 at Walkerville, Ont.

Mr. S. B. Hindes, of 109 Heath St., Toronto, is erecting a factory costing $8,000.

A four-story warehouse is being built for H. Greisman, 68 Adelaide East, Toronto.

A factory is about completed for the Farquharson-Gifford Company at Stratford, Ont.

A general office for Canadian Copper Company at Copper Cliff, Ontario, is about completed.

Foundation is partly in for factory costing $10,000 for Galt Knife Co., Limited, Galt, Ont.

A bank and office building costing $225,000 is being erected for the Quebec Bank at Winnipeg.

Mr. Souillard, Mayor of Laval Rapids, is interested in a factory for the manufacture of pipes.

The Dominion Bank of Canada, Toronto, contemplate opening a branch at Walkerville, Ont.

Work is now in progress for a shingle mill at Yarrow, B.C., for J. H. Maddaugh of Vancouver.

Building for Bank of British North America, costing $50,000, is being erected at St. John, N.B.

The erection of a creamery costing $15,000 is contemplated by Silverwoods, Limited, at London, Ont.

The Bank of Toronto have plans drawn for a three-story stone building costing $12,000 at Barrie, Ont.

Work is to start on a machine shop, cost $68,000, for Canadian Locomotive Co., Limited, at Kingston.

Messrs. John Bertram & Sons Co., Limited, have plans in progress for their storage pattern shop at Dundas, Ont.

A. J. Heinz & Company are contemplating an addition to their vinegar factory at Leamington, Ont.; cost, $15,000.

A refrigerating machine may be required for the warehouse of the Harris Abattoir Co., Limited, Sudbury, Ont.

A five-storey, reinforced concrete printing plant, cost $40,000, for Lowe Martin Company, Ottawa, Ont.

S. J. Major & Company, of Ottawa, Ont., are making an addition to warehouse at a cost of $10,000.

Harris & Harris, general contractors, Confederation Life Building, Toronto, are erecting a branch for the Bank of Nova Scotia at Hamilton.

THE GEO. B. MEADOWS

Toronto Wire, Iron and Brass Works Co., Limited

479 WEST WELLINGTON STREET - TORONTO, CANADA



FACTORY LOCKERS

"Meadows" Lockers are constructed to meet the needs of the modern factory. To give—

Each employee PROTECTION against disease and loss from petty thieving.

The employer PROTECTION against fire from lighted pipes carelessly left in pockets.

Neatness and order in the shop.



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The cut shows STEEL SHELVING installed by us for the Toronto Electric Light Company.

Let us quote YOU on shelving.

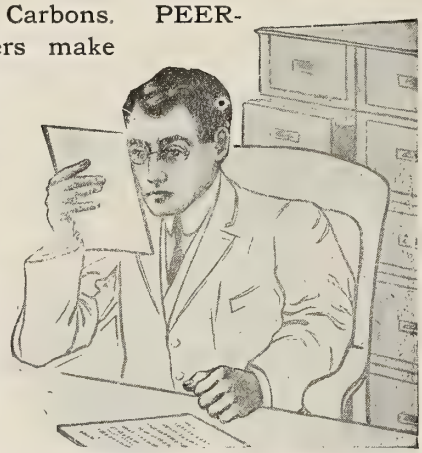
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WIRE WINDOW GUARDS, IRON STAIRS, FIRE ESCAPES

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CARBON PAPERS TYPEWRITER RIBBONS

Clean cut, neatly typed letters are a credit to the firm that sends them out. If yours are not going out in as fine shape as you would like, PEERLESS Ribbons will sharpen them up.

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PEERLESS CARBON AND RIBBON MFG. CO. LIMITED

176-178 RICHMOND STREET WEST, TORONTO

Goold, Shapley & Muir Co.

LIMITED

BRANTFORD : WINNIPEG : REGINA : CALGARY

MANUFACTURERS OF

GAS AND GASOLINE ENGINES



TANKS AND TOWERS FOR Sprinkler Systems

TOWN WATER SUPPLY ETC., ETC

PUMPS

CONCRETE MIXERS

HOISTS, Etc.

Write, if interested.

V. C. Morrison, Franklin, Ind., is contemplating a tile factory at Vernon, B.C.

Mr. M. J. O'Brien, Renfrew, is erecting a two-story factory at Ottawa; cost, $14,000.

A factory is almost completed by the Elbram Stone Company at Sherbrooke, Que.

The National Drug Co. of Canada, Limited, are erecting a factory at Ottawa; cost, $125,000.

The American Bank Note Company, of Ottawa, are erecting a business block costing $145,000.

The Bank of Montreal, Wellington Street, Ottawa, are building an addition costing $15,000.

The Crown Lithographing Company of Ottawa are erecting a factory on Nelson Street to cost $27,000.

The Bank of Nova Scotia have plans in progress for the remodelling of their bank at Digby, N.S.

Operations will start about January 1st for creamery at Belleville, Ont., for Mr. M. Morrison, Guelph.

Foley, Welch & Stewart, of Vancouver, may erect a second saw mill fourteen miles north of Newport to cut ties and bridge timber.

Plans are now drawn for the re-building of malt house for Canadian Malting Co., Lincoln Street, Winnipeg, at a cost of $18,000.

A site of 16 acres has been purchased at Lulu Island, B.C., for the factory contemplated by The Morrison Steel & Wire Co., Vancouver.

At a cost of $25,000, Messrs. S. F. Lawrason & Company, London, Ont., will make alterations and install new machinery in their soap factory.

Plans are in progress for the construction of machine and moulding shops for Logan & Sons, owners and architects, Caledonia, Ont., cost $7,000.

The Plymouth Cordage Company, of Toronto, have had representatives in Fort William looking over several sites for the erection of a warehouse.

It is stated by the Wood Mosaic Co., Inc., New Albany, Ind., that arrangements for the erection of a new factory to cost $100,000, at Stratford, Ont., have been suspended until spring.

The Meyercord Company, Ltd., of St. Catharines, Ont., manufacturers of advertising signs and devices, a branch of the Meyercord Company, of Chicago, have just moved into larger premises, owing to the increase of their Canadian business.

J. H. Thickens, who for three years was Chemical Engineer in charge of the United States Government wood products laboratory at Wausau, Wis., has become associated with the Beaver Companies of Buffalo, N.Y., Ottawa, Ont., Thorold, Ont., Roanoke Rapids, N.Y., and Beaver Falls, N.Y., in the capacity of General Director of Laboratories, with headquarters at the Buffalo Division.

ALWAYS USE

Hammer Brand Plaster of Paris

Manufactured for Half a Century—the Standard of Excellence



Try it and Compare
Its Surface Covering Capacity
With Other Brands

MANUFACTURED SOLELY BY

ALBERT MANUFACTURING CO.

Hillsborough, New Brunswick, Canada

EXPORT AGENTS: THE IMPERIAL EXPORT CO., LIMITED

MELBOURNE	SYDNEY	AUCKLAND	CHRISTCHURCH
17 Queen St.	Martin's Chambers, Moore St.	34 Fort Street	———St.

Nova Scotia Steel & Coal Co.

LIMITED

Head Office: New Glasgow, Nova Scotia

Steel Works - - - - TRENTON, N.S.

Iron Mines - - - - WABANA, NFLD.

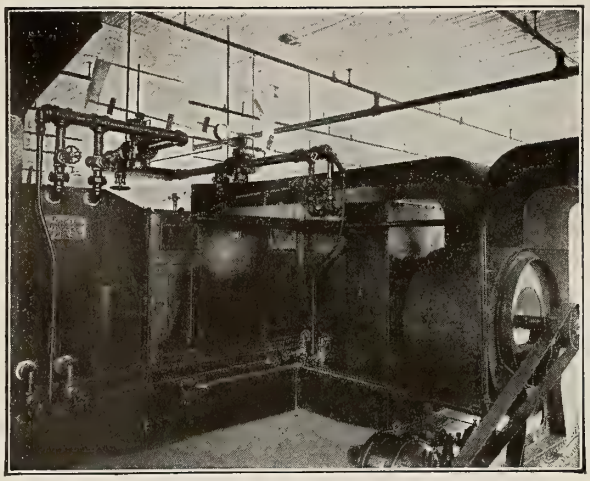
Collieries and Blast Furnaces, SYDNEY MINES, N.S.

"OLD SYDNEY COAL"

Shipping Port, North Sydney

ADDRESS ALL CORRESPONDENCE TO HEAD OFFICE

Made in Canada



Administration Building
Heated, Ventilated and Cooled by a
"Sirocco" System.

"Sirocco"
TRADE MARK

MADE IN CANADA

HEATING, VENTILATING and COOLING SYSTEMS

Are designed by "Men who Know" the intricacies of mechanical ventilation. "Sirocco" System gives that satisfaction most cherished by Contractor and Owner—**Results.** Every "Sirocco" System is designed to meet the particular requirement of each individual case. "Sirocco" Fans have been tested by unprejudiced Engineers who have proven them to be the **most efficient commercial fan manufactured.** Contractors advocating the use of "Sirocco" Fans or Fan System have at their command the co-operation of our most able and experienced Engineering Department.

Sirocco Catalogue No. 102 will interest you. It contains tabulated information about Sirocco Heating and Ventilating Systems.

CANADIAN Sirocco COMPANY LIMITED

WINDSOR. ONTARIO.

SALES ENGINEERS

CLARK T. MORSE, 301 McGill Building, Montreal
E. C. POWERS, Room 5, 43 Victoria Street, Toronto
W. P. EDDY, 214 Donald Street, Winnipeg
S. S. CLARK, 605 2nd Street West, Calgary

Work will start in the spring for the factory for Dowsley Spring Axle Company at Windsor, Ont.; cost, $7,000.

The large new door plant, recently erected by the Canadian Western Lumber Company at Fraser Mills, B.C., is now in operation and turning out about 600 doors per day, which is about 60 per cent. of the capacity of the plant. These doors are finding a market on the prairies and in Eastern Canada.

The Canadian Western Lumber Company have recently completed a shingle plant at Fraser Mills, B.C., and during the past two months have been manufacturing for the Eastern Canadian market. The equipment of the shingle plant consists of eleven electrically-driven upright shingle saws and one 2-block machine.

The Maritime Motor Company factory at St. John has finished the active manufacturing season of the past spring and summer. The operations during the winter will consist mostly of renewal work and repairs. The next manufacturing season is expected to be a comparatively busy one, in which upwards of 300 cars will be built.

The work on the huge million-dollar Government elevators in Britannia Park, Moose Jaw, is going ahead in full swing, with 150 men working. The work will be continued throughout the winter except in the very cold weather. Construction on the first building of the flax mill adjoining the elevators is nearly completed.

The St. John River Lodge Driving Company is preparing to change the methods of rafting, and instead of the system which has been in vogue on the river for many years will next season inaugurate tailing and cross hauling methods. The change is being made for the purpose of effecting a saving in the cost of rafting logs, and it is believed that a reduction from about $1.50 to $1.00 per thousand can be made. It is also proposed to introduce the simplex separation of logs going into the company's booms.

Tenders are being called for the construction of an immense factory at Coldbrook, N.B., for the Canada Nail and Wire Company, Limited. It is expected that the contract will be awarded this week, and as soon as the successful tenderer is notified the work of construction will be commenced, and it is the intention of the company to have the works completed within three months and ready for operation early in the spring.

The machinery for the new plant has been ordered and the work of constructing the plant will be rushed along to have the building ready when the machinery arrives. It is seldom that a job of this magnitude is undertaken at this time of the year in St. John, but the new company is anxious to get to work, and it is not expected that the difficulties attending winter construction will be serious enough to retard the work.

The company has been organized for the manufacture of horseshoe nails and horseshoe calks.

MANY ENQUIRIES FROM SOUTH AFRICA.

From the number of enquiries for Canadian manufactured goods by South African dealers appearing in the weekly report it would appear that Mr. W. J. Egan, Canadian Trade Commissioner, with headquarters at Durban, is displaying even more energy than when he was stationed in Great Britain. A number of these enquiries have been reproduced in INDUSTRIAL CANADA, but Canadian manufacturers would do well to scan carefully the reports and enquiries that Mr. Egan is sending over.

ARE YOUR STEAM PIPES INSULATED?

IF NOT YOU ARE BURNING MONEY

A **GOOD** Covering pays for itself in one Season, and is a revenue producer indefinitely.
The Best is the Cheapest. ☞**WE HAVE IT.**

EUREKA MINERAL WOOL & ASBESTOS COMPANY

118 ADELAIDE STREET WEST, TORONTO, ONTARIO

THE SANITORIUM TO BE BUILT NEAR KAMLOOPS.

At Tranquille, which is eight miles west of Kamloops, and where the large Sanitorium for Tuberculosis patients is located, arrangements are being made to erect a new building for advanced cases.

Tenders have been called, but no contract let as yet. The sum of $75,000 is already in hand, while the Provincial Government will be asked at the coming session for a further grant of $75,000 to complete and fully equip it with all modern improvements.

It will be a handsome four-story structure of reinforced concrete, and when ready for occupancy will cost not less than $150,000.

It is hoped to have this much-needed building ready for patients early next fall. The present buildings are full, and many are forced to be turned away, and this new addition to the Tranquille Sanitorium will be a great assistance in furthering the good work done by that institution.

DEFINED.

The sweet young thing was being shown through the locomotive works.

"What is that?" she asked, pointing with a dainty parasol.

"That," answered the guide, "is an engine boiler."

She was an up-to-date young lady and at once became interested. "And why do they boil engines?" she inquired again.

"To make the engine tender," politely replied the resourceful guide.

HOW DO YOU CARRY YOUR FUNDS WHEN TRAVELLING?

Surely not in Cash!

THE SAFEST AND MOST CONVENIENT WAY TO CARRY YOUR MONEY IS IN THE

TRAVELLERS' CHEQUES
OF THE
DOMINION EXPRESS COMPANY

These Cheques show on the face thereof the exact amount you will receive in the various countries throughout the world, and as they are accepted by first-class Stores, Hotels, Tourists Agencies, Express, Railway and Steamship Agencies, Banks and Bankers, in addition to our regular correspondents, no difficulty is experienced in getting them cashed at any hour of the day They are issued in denominations of $10, $20, $50, $100 and $200, are self-identifying, and protect you in the event of the loss of the cheques.

OVER FIFTEEN THOUSAND REGULAR CORRESPONDENTS THROUGHOUT THE WORLD

For Further Particulars Apply to our Local Agent

Toronto City Offices:
48 YONGE ST. and 1330 QUEEN ST. W.

Agencies in all C.P.R. Stations and Branch Agencies in Drug Stores, etc.

Conveniently Located in Residential Districts.

POLSON IRON WORKS
LIMITED
Toronto - Canada

STEEL SHIPBUILDERS
ENGINEERS AND
BOILERMAKERS

Hydraulic and Dipper Dredges, Steel and Composite Steamers and Yachts, Marine and Stationary Engines and Boilers. :: ::

Office and Works
ESPLANADE STREET EAST
Toronto

AGENTS FOR QUEBEC
WATSON JACK & CO.
709 Power Building - Montreal, Que.

BUYERS' GUIDE TO CANADIAN MANUFACTURES

A List of Articles Which Will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. For Rates for Insertion in this Department Write to the Advertising Manager of Industrial Canada, Toronto.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto.

ACETYLENE WELDING APPARATUS
*L'Air Liquide Society, Montreal, Que.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal.

ADVERTISING CONTRACTORS
Central Press Agency, Toronto.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.

AGRICULTURAL IMPLEMENTS
Tudhope-Anderson Co., Ltd., Orillia, Ont.

AIR WASHERS
*The Canadian Service Co., Windsor, Ont.

ALCOHOL
The St. Hyacinthe Distillery Co. Ltd., St. Hyacinthe, Que.
*Hiram Walker & Sons, Ltd., Walkerville, Ont.

ALE
E. L. Drewry, Winnipeg, Man.

ALUMINUM
*Northern Aluminum Co., Ltd., 1305 Traders Bank, Toronto.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto.

ANGLE BARS
*The Steel Co. of Canada, Ltd., Hamilton.

ANIMAL REGULATORS
Pratt Food Co., of Canada, Ltd., Toronto.

ARCHITECTS
*T. Pringle & Sons, Montreal.

ARSENIC, refined white
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.

ASBESTOS:
*Eureka Mineral Wool & Asbestos Co., Toronto.

ASBESTOS BUILDING LUMBER
*Asbestos Mfg. Co., Ltd., Montreal.

ASBESTOS CEMENT SHINGLES
*Asbestos Mfg. Co., Ltd., Montreal.

ASBESTOS CORRUGATED SHEATHING
*Asbestos Mfg. Co., Ltd., Montreal.
*Canadian H. W. Johns-Manville Co., Toronto.
*Eureka Mineral Wool & Asbestos Co., Toronto.

ASBESTOS MILLBOARD:
*Asbestos Mfg. Co., Ltd., Montreal.

ASBESTOS PRODUCTS;
*Asbestos Mfg. Co., Ltd., Montreal.
*Canadian H. W. Johns-Manville Co., Toronto.
*Eureka Mineral Wool & Asbestos Co., Toronto.

ASBESTOS ROOFING SLATES:
*Asbestos Mfg. Co., Ltd., Montreal.

ASBESTOS SHEATHING:
*Asbestos Mfg. Co., Ltd., Montreal.
*Canadian H. W. Johns-Manville Co., Toronto.
*Eureka Mineral Wool & Asbestos Co., Toronto.

ASBESTOS SHEET AND PISTON PACKINGS:
*Asbestos Mfg. Co., Ltd., Montreal.
*Canadian H. W. Johns-Manville Co., Toronto.
*Eureka Mineral Wool & Asbestos Co., Toronto.

ASBESTOS STEAM PIPE AND BOILER COVERINGS:
*Asbestos Mfg. Co., Ltd., Montreal.
*Canadian H. W. Johns-Manville Co., Toronto.
*Eureka Mineral Wool & Asbestos Co., Toronto.

ASBESTOS TEXTILES:
*Asbestos Mfg. Co., Ltd., Montreal.
*Canadian H. W. Johns-Manville Co., Toronto.
*Eureka Mineral Wool & Asbestos Co., Toronto.

ASBESTOS THEATRE CURTAINS:
*Asbestos Mfg. Co., Ltd., Montreal.

ATHLETIC UNDERWEAR
Williams, Green & Rome Co., Ltd., Berlin, Ont.

AUTOMOBILES
*Ford Motor Co., of Canada, Ltd., Walkerville, Ont.
*Russell Motor Car Co., Ltd., Toronto.

AUTOMOBILE ACCESSORIES:
*Tallman Brass & Metal Co., Hamilton.

AUTOMATIC SPRINKLERS
*The General Fire Equipment Co., Ltd., Toronto, Ont.

AUTOMOBILE TOPS
Cutten & Foster, Toronto.

AWNING CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.

AWNINGS
J. J. Turner & Sons, Peterboro, Ont.
*Smart-Woods, Ltd., Montreal.

AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Limited, Port Hope Ont.
*The Canada Metal Co., Toronto.
*Tallman Brass & Metal Co., Hamilton.

BACON
E. W. Fearman Co., Ltd., Hamilton, Ont.

BAGS
*Smart-Woods, Ltd., Montreal.

BAGS, cotton
Bemis Bros. Bag Co., Winnipeg, Man.
The Canadian Bag Co., Ltd., Montreal, Que.

BAGS, jute
Bemis Bros. Bag Co., Winnipeg, Man.
The Canadian Bag Co., Ltd., Montreal, Que.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal, Que.
Lamontagne, Ltd., Montreal, Que.
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto.

BAKING JAPAN
*Berry Bros., Ltd., Winnipeg, Man.

BAND RESAWS:
*Berlin Machine Works, Ltd., Hamilton.
*Canada Machinery Corporation, Galt.

BANK AND OFFICE RAILINGS
*The Geo. B. Meadows, Toronto Wire, Iron & Brass Works Co., Ltd., Toronto.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK RAILINGS and CAGES:
*Dennis Wire & Iron Works Co., London.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Toronto.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
The Canadian National Carbon Co., Ltd., Toronto.
Canadian Carbon Company, Ltd., Toronto.
*The Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.

BEARINGS:
*The Chapman Double Ball Bearing Co., Ltd., Toronto.
*The Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton.

BEARINGS, pillow, block and upright:
*Dodge Mfg. Co., Ltd., Toronto.

BEDS, camp folding
*Otterville Mfg. Co., Ltd., Otterville, Ont.
*Smart-Woods, Ltd., Montreal.

BEDSTEADS AND BEDDING
The Ideal Bedding Co., Ltd., Toronto.

BEEF
E. W. Fearman Co., Ltd., Hamilton, Ont.

BEER
E. L. Drewry, Winnipeg, Man.

BELTING AND BELTS (Ladies)
J. Henry Peters Co., 1 Mincing St., Toronto.

BELT DRESSING:
*Dodge Mfg. Co., Ltd., Toronto.

BELTING, Chains
*Dodge Mfg. Co., Ltd., Toronto.
*Jeffrey Mfg. Co., Montreal, Que.

BELTING, Elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

BELTING, leather
The Beardmore Belting Co., Ltd. Toronto.
J. L. Goodhue & Co., Danville, P.Q.
Sadler & Howarth, Montreal.
*The D. K. McLaren Belting Co., Ltd., Montreal.
*The J. C. McLaren Belting Co., Ltd., Montreal.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co. Ltd., Toronto.
*Goodyear Tire & Rubber Co., Ltd., Toronto.
*Gutta Percha & Rubber, Limited.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BICYCLES AND ACCESSORIES
*Canada Cycle and Motor Co., Ltd. Toronto.

BILLIARD BALLS
Samuel May & Co., Toronto.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS:
*A. C. Leslie & Co., Montreal.

BLANK BOOKS:
*Morton, Philips & Co., Montreal.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford Ont.

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford Ont.
*Smart-Woods, Ltd., Montreal.

BLANKETS, lumbering
Slingsby Mfg. Co., Ltd., Brantford Ont.

BLANKETS, shanty
Slingsby Mfg. Co., Ltd., Brantford Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
Canadian Salt Co., Ltd., Windsor Ont.

BLINDS, outside
The Watson-Smith Co., Ltd., Toronto.

BLOWERS:
*The Canadian Sirocco Co., Windsor, Ont.
*Sheldons, Ltd., Galt.

BOAT TOPS
Cutten & Foster, Toronto.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOILER COMPOUND and OILS
Electric Boiler Compound Co., Ltd Guelph, Ont.

BOILERS
*Goldie & McCulloch Co., Ltd., Galt, Ont.
*E. Leonard & Sons, London, Ont
John McDougall Caledonian Iron Works Co., Ltd., Montreal, Que.
*Polson Iron Works, Ltd., Toronto
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co., Ltd., Guelph Ont.
*The John Inglis Co., Ltd., Toronto
*International Engineering Works Ltd., Amherst, N.S.
*Jenckes Machine Co., Sherbrooke.
*The Waterous Engine Works Co., Ltd., Brantford.

BOILERS, heating:
*The Goldie & McCullough Co., Ltd. Galt.

BOILERS, hot water or steam
Warden King, Ltd., Montreal, Que.

BOILERS, steam
Steel and Radiation Ltd., Toronto.
Warden King, Ltd., Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford.

BOILERS, steam and brass work:
*The Waterous Engine Works Co., Ltd., Brantford.

BOILERS and TANKS:
*International Engineering Works Ltd., Amherst, N.S.
*The Waterous Engine Works Co., Ltd., Brantford.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLSTERS
*Canadian Car & Foundry Co., Ltd. Montreal, Que.

BOLTS:
*The National Acme Mfg Co., Montreal.

BOLT CUTTERS:
*Canada Machinery Corporation Galt.

BOLTS AND NUTS:
*The Canadian Fairbanks-Morse Co., Ltd., Montreal.
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton.
Starr Mfg. Co., Ltd., Dartmouth N.S.

BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co. Ltd., Stratford, Ont.

BOOKLETS
Stone Limited, Toronto.
R. G. McLean, Toronto.

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES,
Ames-Holden-McCready, Ltd., Montreal, Que.
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

*For Display Advertisement See Index, Page 722.

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Prosperity in Northern Ontario

"THE district of Northern Ontario, along the line of the Temiskaming and Northern Ontario, has not yet felt the pinch of hard times. This is due to the undiminished productivity of the principal mines in Cobalt and Porcupine. There has been practically no decrease in the staffs, and the money brought into the district in payment for the ore sold keeps trade brisk and credit firm."

The above statement was made in the latter part of January to INDUSTRIAL CANADA by Mr. H. W. Sutcliffe, of New Liskeard, an engineer and contractor who is thoroughly familiar with conditions in the T. & N. O. district.

It is gratifying to notice that prosperity is not confined to a section of Northern Ontario. In 1911 the value of all the minerals mined in Ontario was $42,796,162; in 1912, it increased to $51,985,876.

A corresponding increase is shown in the mineral output for the whole of Canada.

In 1911 the value of all the minerals mined in the Dominion was $103,220,994; in 1912, it was $135,048,296. These statistics appear in the report of the Dominion Geological Survey. It is expected that the figures for 1913, when available, will show a gratifying increase over preceding years.

The basis of our national prosperity depends upon the value of what we can produce. In production, mines play an important part. It is certain that their steadily increasing productivity is helping to bridge the present depression.

Mr. Drayton and Ocean Rates

THE recently issued report of Mr. H. L. Drayton, K.C., Chairman of the Board of Railway Commissioners, who was sent by the Canadian Government to England last summer to investigate the question of ocean freight rates, contains little encouragement to Canadian shippers. It is almost painfully apparent that the result, apart from the compiling of certain fairly familiar correspondence and information, may be summed up in a sentence from the report itself: "I am still of the view that an investigation should be held."

Why was Mr. Drayton sent to England?

This question, which has been asked by many shippers, will be repeated upon perusing a letter written to Mr. Drayton from the British Board of Trade and included in his report.

This letter recalls the offer of co-operation in a joint inquiry into ocean freight rates, made by Lord Crewe to the Governor-General of Canada on August 19th, 1910, and which "appears to have met with no response from the Canadian Government until now." The letter goes on to say that, on April 15th, 1912, in pursuance of a resolution passed by the Imperial Conference of 1911 on the motion of the Canadian Prime Minister, a joint Royal Commission was appointed, representing the Dominions and the United Kingdom, "in whose terms of reference the question of shipping freights was clearly included."

The letter continues:

"In these circumstances, the Board, after consultation with the Secretary of State for the Colonies, feel that it would not be possible at the present stage to advise His Majesty's government to appoint a second Royal Commission representing Canada and the United Kingdom only, to investigate a subject which the Royal Commission on the trade of the dominions are already examining and on which it is understood that this Commission will very shortly be taking evidence in Canada. In any event a Commission possessing all the powers suggested by you could not be constituted without legislation, and it could not,

therefore, be appointed or get to work until next year, by which time it is understood the Dominions Royal Commission will be visiting Canada."

It seems extraordinary that the Chairman of the Dominion Railway Commission should have been taken away from his important duties to go to England urging the appointment of a Special Commission to overlap the work of an Imperial Commission (of which Hon. Mr. Foster is a member) that will be in Canada shortly.

Several important cases of vital interest to manufacturers have been before the Board of Railway Commissioners for some years. Among these are the cases dealing with switching and inter-switching joint rates, rates west of Port Arthur, telegraph contracts, revision of car demurrage rules and the readjustment of Western freight rates.

In future it would be good policy for the Government to delegate such investigations to other representatives, and to leave the Chairman of the Board to occupy all his time in the discharge of the onerous duties of his office.

In the meantime, the trend of ocean freight rates is still upward. What is being done to relieve the burden of fresh impositions upon Canadian exporters? Is the Hon. Mr. Foster using his influence, as a member of the Dominions Trade Commission, to secure the speedy investigation of ocean freight rates?

Ontario Manufacturers and Compensation

BECAUSE the manufacturers of Ontario are opposed to the Workmen's Compensation Bill drafted for the Government of the Province by Sir William Meredith, it has been charged that they are hostile to the main principle of compensation. To disprove such a statement it is only necessary to review the attitude of the Canadian Manufacturers Association towards compensation during the last three years. Instead of opposition there was co-operation from the first. Instead of retarding the progress of the movement, the manufacturers led the way. They appointed one of the strongest standing committees which has ever represented the Association, to investigate and report upon the best systems in operation throughout the world. Experts were brought before the Commissioner, and it is worth noting that, at the public hearing in the Ontario Parliament Buildings on January 20th, the representatives of labor gave the manufacturers credit for selecting impartial experts, some of whom differed with the manufacturers on some points. A bill was drafted embodying the results of the manufacturers' deliberations and laid before the Commissioner. From the beginning the work of the manufacturers was constructive, and it is significant that the principles which they enunciated after years of investigation are the foundation of Sir William Meredith's bill. They wanted a model act which would amply protect employees without placing an insupportable burden upon industry and their good faith is proved by the fact that their draft act provided the most liberal compensation in the world, with the exception of the State of Washington.

Then, why do they oppose Sir William's Act? One reason is that, while a third of his act is taken almost verbatim from the manufacturers' draft act, he has incorporated, in addition, over a third of the English Act, which includes provisions and principles entirely contradictory to those contained in the sections from the manufacturers' act.

A horse and an ox make a poor team under the most favorable condition, but if they are yoked together and the horse pulls east while the ox pulls west much confusion will result without starting the load.

British Preference and Freight Rates

THOSE who advocate an increase in the British Preference claim that the present preference has been absorbed by the recent rise in ocean freight rates. Consequently, they say, British goods entering Canada should pay less duty because they pay more ocean freight.

This argument is refuted by Mr. H. L. Drayton, K.C., Chairman of the Board of Railway Commissioners, who was sent to England last summer to investigate ocean freight rates. In his report, he says:

"The claim that importers made to the effect that the British Preference was absorbed by the increased rates does not appear to be borne out. The following statement, supplied by the Conference lines, would seem to be approximately correct:

	Value. Per 40c. ft.	Preferential. Per 40c. ft.	Rates. 1910	Rates. 1912	Increase.
Woollen goods	£90	5%—90/-	27/6	30/-	2/6
Cotton piece goods.	£80	5%—80/-	22/6	30/-	7/6
Carpets	£50	5%—50/-	20/-	25/-	5/-
Felt hats	£30	7½%—45/-	15/-	20/-	5/-
Cutlery	£150	7½%—225/-	25/-	35/-	10/-

"No shipper has supplied me with any information which supports the general proposition, that is that the British Preference has been absorbed."

The above table could furnish a much stronger argument. For example, the British Preference rate on woollen goods is averaged at 5 per cent., whereas 5 per cent. is the minimum preference, while the maximum is 12½ per cent. On blankets, flannels and certain other woollen fabrics, the general tariff is 35 per cent., and the British Preference is 22½ per cent., giving the British manufacturers an advantage of 12½ per cent.

Taken at 5 per cent., the preference, according to the table, amounts only to 90 shillings on woollen goods valued at £90, occupying 40 cubic feet. Taken at 12½ per cent., which is the preference on blankets, flannels and certain other woollen fabrics, it amounts to 225 shillings on £90 worth of goods. In 1910, the freight on £90 worth of woollens, says the table, was 27s. 6d.; in 1912, it rose to 30s., an increase of 2s. 6d. How can a British manufacturer of woollens, who pays 225s. less duty on £90 worth of woollen goods entering Canada than his foreign competitor, be robbed of this preference by an increase of 2s. 6d. in ocean freight?

On cotton piece goods, the preference ranges from 7½ to 10 per cent. over all foreign countries. On woollen and cotton carpets the preference is 10 per cent., while 5 per cent. is the preference over favored nations on carpets made of straw. On felt and straw hats the preference is 12½ per cent., and while on cutlery the preference over certain favored nations is 7½ per cent., over most foreign countries it is 10 per cent.

The figures from Mr. Drayton's report are not nearly so strong as they might have been, but they disprove the contention that the British Preference is swallowed up by the advance in ocean freights, and will make it impossible to urge such an argument in support of increasing the preference.

Technical Education Needed Quickly

THE Dominion Government should do something substantial toward the cause of technical education during the present session. There will be differences of opinion as to the manner in which a nation-wide system should be established, but all seem to be agreed on the main point—that a beginning should be made this year. If we are to retain the thousands of immigrants who are coming to Canada and provide opportunity for the youth of Canadian towns and villages, we must furnish them with suitable and remunerative employment. To secure this they must have the skill which only comes with intelligent instruction and manual training. The manufacturers of Canada are not going to quibble over educational theories, or debate special methods or quarrel over questions of Dominion or Provincial control. They want to see money spent quickly and wisely in the process of transforming thousands of untrained and poorly paid Canadians into skilled and highly paid workers.

Gracious Concessions of U. S.!

AS was expected, the United States Government quickly found a way to nullify almost entirely the clause of the Underwood Tariff which extends free admission to Argentine bran. Quantities of bran shipped from the Argentine have been held up by the United States authorities, who claimed that it was infected because Argentine cattle were supposed to be suffering from foot-and-mouth disease.

It requires a powerful imagination to transport microbes from cow stables to flour mills, and we are at a loss to understand how the United States officials accomplished this feat, unless they entertained the delusion that the latest milling methods of the Argentine include the biblical treading of grain under the hoofs of oxen.

Some customs Solomon has apparently risen at last to solve the problem, as the New York *Journal of Commerce* announces that Argentine bran (which has been held so long in captivity that Argentine shippers have been probably discouraged) will be admitted if accompanied by "suitable credentials."

An example of this practice as applied to Canada occurred recently in regard to our export potatoes.

The old U. S. duty against Canadian potatoes was twenty-five cents per bushel. The new duty is 10 per cent. ad valorem, which is about 3 cents per bushel. But Canadian potatoes were quickly barred by a successful appeal for their total prohibition by the United States producers who claimed that they were infected. Strange that infection was not apparent when the higher duty was in force.

Our West cries for the free admission of wheat into the United States. The moment that Canadian wheat comes into real competition with that grown by United States producers, a pretext will be found to keep it out just as Canadian potatoes and Argentine bran have been barred. In other words, it will be declared sick and turned back from the border like an undesirable immigrant by Uncle Sam's physicians.

Trying it on Ontario

WHY should Ontario be selected as a subject upon which to experiment with the most advanced system of workmen's compensation in the world? No one can deny that Sir William Meredith's bill, if adopted in its present form, will give more compensation to workmen than is given by the systems established in such countries as Great Britain, Germany and the United States. Manufacturers in these countries have won assured places in the world's markets. Ontario manufacturers are still fighting the battles of industrial youth. Sir William should have profited by the example of the vivisectionists, who select a strong and mature animal, instead of a weak and young animal, for their awful experiments.

Will U. S. Rates Increase?

NOTICE has been issued of sittings of the Interstate Commerce Commission at Washington, D.C., commencing Jan. 26th and extending to March 5th, to hear the objections of shippers to the proposed advance of 5 per cent. in freight rate on particular traffic, affecting special commodities on the lines east of Chicago and north of the Ohio river.

Separate dates have been assigned to hear the testimony of the protestants in regard to the different commodities.

Canadian manufacturers are concerned in the result because an increase of the United States freight rates will increase the transportation costs on part of their raw material. The proposed increase on bituminous coal from Pennsylvania to Toronto, for example, is 11 cents per ton.

It is also certain that if the United States railways are successful, Canadian railways will demand, and probably secure, a corresponding increase of freight rates.

British and Foreign Capital in Canada

THE amount of British and foreign capital invested in Canada was estimated at the beginning of this year by Sir George Paish, the eminent British economist and financial writer, thus:

"Since 1907 inclusive, the amount of British capital publicly invested in Canada has been about £250,000,000, of which over £61,000,000 sterling has been placed in the country in the year just closing. It is computed that the total influx of capital, public and private, from the United Kingdom and from the United States in the last seven years has been £350,000,000. This great influx of capital brings the total amount of British capital in publicly issued securities to the great sum of over five hundred millions sterling (£500,000,000), while the amount of American capital invested in the country is placed at upwards of one hundred millions sterling (£100,000,000). Including capital placed privately in the country in mortgages on real estate and in loans to farmers, the total amount of foreign capital supplied to Canada is nearly seven hundred million pounds sterling, carrying with it an interest burden of over thirty millions sterling (£30,000,000) per annum. And of this great sum one-half has been placed in the country in the last seven years."

Sir George Paish estimated the United States capital invested in Canada at £100,000,000, or about $500,000,000. These were the latest figures available to him at the time, and agreed with those compiled by the *Monetary Times* of Toronto. Shortly after his article was written the *Monetary Times* published a new estimate, prepared during the past year, placing the United States capital invested in Canada at $636,903,952, made up as follows:

450 branch companies, with average investment of $300,000	$135,000,000
Investments in British Columbia mills and timber	70,000,000
Investments in British Columbia mines	62,000,000
Land deals in prairie provinces	40,000,000
Investments in lumber and mines, prairie provinces	10,500,000
Theatrical enterprises	3,000,000
Packing plants	6,750,000
Agricultural implements distributing houses	9,255,000
Land deals, British Columbia	60,000,000
Investments of United States life and fire insurance companies	67,831,497
Miscellaneous industrial investments	12,225,000
Purchase of city and town property	20,725,000
Investments in the Maritime Provinces	13,125,000
Purchase of government, municipal and corporation bonds, 1905-1913	123,742,455
Fox farm investments, Prince Edward Island	1,000,000
	$636,903,952

Consequently, the British and foreign capital invested in Canada now stands in round numbers as follows:

British and foreign (excluding that from the United States)	$3,000,000,000
United States	636,000,000
Total	$3,636,000,000

Gigantic as this sum is, it is necessarily only a fraction of the value of the revenue producing enterprises in which it is invested.

It must be obvious that, while there are other contributing causes, the National Policy of "adequate protection" is largely responsible for the accumulation of this capital and the consequent establishment of enterprises.

Protection brought factories to Canada, and these factories accelerated the growth and increased the prosperity of municipalities and railway systems, in the lands and stock of which much British and foreign money is invested. The rising value of these, in turn, increased the price of land. Consequently, if the influx of capital is to continue and increase, there should be no change in the fiscal policy which has helped to produce such satisfactory results.

Underwood Tariff and Cost of Living.

THE principal argument used to secure the enactment of the Underwood Tariff Bill in the United States was that it would reduce the cost of living.

Is it doing so?

Sufficient time has not elapsed since the Bill has become law to compile comparative statistics on which to base general conclusions, but there are indications which tend to prove that the struggle to live is not becoming less intense as a result of lowering the duty.

The *New York Times Annalist,* a well-known financial weekly, publishes in each issue an index number which shows the fluctuations in the average wholesale price of twenty-five food commodities selected and arranged to represent a theoretical family's food budget. It is, therefore, a more sensitive record of the cost of living to the ordinary consumer than the Government's index number. At the beginning of January, 1913, it stood at 137. By December 27th, 1913, it had risen to 140.94. The average for 1913 was 139.98.

During 1914 the trend has not been down, but up, as illustrated by the following weekly averages:

Week.	Average on 25 articles.
Jan. 17	143.28
Jan. 10	142.92
Jan. 3	142.05
Average for 1913	139.98

It is also significant that the average for the week Jan. 17, which was 143.28, is slightly higher than the average for the year 1912, which was 143.25. Both are considerably higher than the average of 137.17 for 1910.

If later and more comprehensive statistics agree with those published by the *New York Times Annalist,* the cost of living argument in favor of reducing tariffs will have to be dropped.

Canadians should await the results of lowering duties on the cost of living in the United States before trying the same remedy to reduce the high cost of living in this country.

Panama Tolls Condemned

THE discrimination in favor of the coast shipping of the United States through the Panama Canal, which was passed by Congress in spite of the protests of Great Britain, has not yet secured the approval of the fair-minded in the nation. The following sweeping condemnation appeared in the *Chicago Tribune* in January:

"What is the disposition of the President and of the present Congress towards the Panama tolls question?

"The last Congress passed the Panama Administration Act, including the provisions for the left-handed subsidy of our coast shipping, which has done more to besmirch our reputation for good faith and fair play than any act within recent years.

"Behind our jingo talk about the right of the United States to do what it will with its own lies couched this smug subsidy to a powerful interest, defying the healthy distrust and dislike of subsidies cherished by the nation, defying the claims of justice which lie against the mulcting of the whole people of the share this interest should pay toward the canal enterprise, denying repeated declarations by the highest authorities of our intentions respecting the creation and operation of the canal, denying the straightforward commitments of a solemn treaty, and making mock of our asserted devotion to arbitration.

"What is the power back of this toll subsidy that can withstand the combined influence of such considerations?

"If the shipping interests are to be fortified in this valuable privilege let it be done openly and at the expense of our pocket-books and not at the expense of our honor. If we are to grant this subsidy let us name it a subsidy, and let us keep our treaty obligations fully without quibbling.

"The toll provision should be repealed because it is uncalled for and unjust.

"But if it is not repealed it should be submitted to arbitration."

Why Should Cost of Living Not Increase?

WE recommend to the attention of the Dominion Commission investigating the cost of living the following figures recently published by the Census Office, showing the area and value of the principal field crops of Canada:

Year.	Acreage.	Value.
1912	35,575,000	$557,344,100
1913	35,375,000	552,771,500
Decrease	200,000	$ 4,572,600

Last year our immigration was about half a million. If our population, including natural growth outside of immigration, increases at the rate of over half a million, and the acreage of our principal field crops and their value decrease, it is apparent that there is less food to feed more people. Consequently the cost of living must rise.

Manufacturers Can't Support Commission

SIR WILLIAM MEREDITH, in drafting the Workmen's Compensation Bill for Ontario, apparently proposes to make the manufacturers pay the cost of administration.

Why should the manufacturers bear the cost of maintaining a Government Commission, which will be created in the interests of labor and of the public? The railways of Canada do not maintain the cost of the Dominion Railway Commission; the railways and municipalities of Ontario do not maintain the Ontario Railway and Municipal Board.

By providing compensation for injured workmen and their dependents and for the dependents of workmen killed in the course of their employment, the Bill will relieve the general public of a great proportion of the responsibility for the care of the poor. It is reasonable to suppose that part of the money thus saved would be used to maintain the system which produced so happy a result.

The Pessimism of Dr. Eliot

AS a result of the modern factory system, the United States will be peopled by a degenerate race in a hundred years says Dr. Charles W. Eliot, President Emeritus of Harvard University. Situated in close proximity to the United States and manufacturing under similar conditions, we can scarcely hope to escape from a similar prediction.

History gives no warrant for the assertion that there is any relation between industry and degeneracy. The ancient civilizations were based largely upon the work of artisans, who created things which distinguished the users from savages, while agrarian peoples or desert dwellers have never been remarkable for social progress. In modern times, the culture of Britain, Germany, France and other civilized nations is to a great extent the result of the advancement in applied science and manufacturing.

There seems to be no desire on the part of the people in the United States or Canada to push the factory workers towards degeneracy or despair. Housing companies are trying to protect them from high rents; governments are passing favorable laws; workmen's compensation systems are being devised to protect them from injury and illness; child labor has disappeared and playgrounds are provided for the children; wages are increasing; hours are decreasing.

Cheer up, Dr. Eliot. The *Scientific American,* of recent date, contains an article describing the skull of a man who lived five hundred thousand years ago on this earth. His brain cavity was little bigger than that of the most advanced modern monkey. It was not one-quarter the size of the average human brain space of our time. Until we see proof that the factory worker's brain space is reverting to that of the five hundred thousand year old man, we must beg Dr. Eliot to take a more sunny view of the future of his fellow countrymen.

LORD STRATHCONA



GREAT and high-sounding is the name "Baron Strathcona and Mount Royal," but the recent news which came from the High Commissioner's office was translated throughout Canada, from the board rooms of Montreal to the outlying posts of the Hudson's Bay Company, into the terse message: "Donald Smith is dead." It was "Donald Smith" who came as a Highland lad to engage in the precarious fur trade of Labrador, who rose to be Chief Commissioner of the Hudson's Bay Company and who helped to build the Canadian Pacific Railway. "Donald Smith" was a near and familiar figure to the people of Canada. "Lord Strathcona" was cut off from them by his eminence. Yet the latter years of his life, spent in discharging the duties of High Commissioner, were filled with service. "Donald Smith" raised the rough and powerful framework; "Lord Strathcona" finished and gilded the stately edifice.

A wealthy man, seventy-six years old, might naturally have been expected to pass the last years of a strenuous life in retirement, but we find Donald Smith accepting the onerous post at London instead. What he has done for Canada during the last eighteen years every business man in this country knows; his great ability and his generous hospitality were ever at the disposal of Canadians. By his death we have lost a loyal and tireless friend.

There are two dramatic episodes which are distinguished even in so great a career as that of the late Lord Strathcona—his experience in Labrador as an employee of the Hudson's Bay Company and his connection with the building of the Canadian Pacific Railway, both of which are described by T. P. O'Connor, M.P. Speaking of Donald Smith in Labrador, he says:

"First try to realize that the company at that moment has most of its work in the semi-Arctic if not Arctic regions; that winter lasts from December to June—and a winter of overwhelming darkness; that these vast spaces under the black and icy sky of the Arctic extend to infinite distances, with great lakes, primeval and thick forests, lofty mountains; that there are no inhabitants except a few Red Indians, and that wild beasts still roam through this primeval world; and that the only settlements that break this vast desert are the small knots of half a dozen wooden houses, with about a dozen men inside of them, who are the agents of the Hudson's Bay Company.

"A dwelling-place, a hunting-lodge and a fort, this is what each little settlement is in combination; its inhabitants have to cross through the country at intervals, to meet the aboriginals and deal with them in furs; occasionally to retire and protect their forts from savage attack; always to fight against the inclemencies of the skies and the impassable and vast distances. It helps to give one some idea of the terrible isolation in which these fearless pioneers of a new world lived that the great event of the year was the post which came from home, and had adventures such as few posts have ever had in the history of the modern world. There are two thousand miles of land travel between Quebec and Ungava; and along this route, even in the depths of winter, Lord Strathcona, in the days of his brave youth, had to pass on foot and in dog-sleds, not once, but several times.

"When I see the gigantic prosperity and magnificence of his position to-day in the heart of the empire, I cannot help thinking of all the splendid courage, tenacity and endurance which lie behind in those terrible thirteen years in Labrador, amid the tents of the Esquimaux and under the terrors of the Arctic lands.

"For thirteen long years Donald Smith went through this terrible life of solitude and hardship; never complaining, never fretting, apparently, sticking to his work—and with such keen business aptitude and undivided attention that he was always able to show a profit. Frozen in winter, tortured in summer by the mosquito, with no companionship save that of a few fellow-settlers, Donald Smith served this grim apprenticeship. I repeat that, whatever glories there have come to his old age, this youth of fierce and ever-enduring work, under such conditions, has more than earned."

The struggle to build the C.P.R. is thus pictured by Mr. O'Connor:

"Suffice it to say that there was scarcely a mile of that great system which had not been fought for in the early days; against want of capital, against tremendous natural difficulties, against violent and powerful political opposition. There are episodes in the story that read more like scenes in a daring melodrama than incidents in the real and hard life of railway construction. Again and again the vast enterprise trembled in the balance. There are stories of moments when the men who had staked their all—which with some of them already meant millions—and who stood at the cross-roads, one of which led to dazzling wealth and the other to the abyss of bankruptcy and irredeemable poverty; there are stories of some of these men who are said to have waited through nights of agony prepared to face self-inflicted death rather than the impending catastrophe of the morrow.

"But amid all this agony of hope and despair there is one man whose nerve is never reported to have failed; and that was the quiet, soft-spoken, gentle but grimly resolute Scotchman, who had learned self-control and silence and endurance under Arctic skies. Some of the sayings of Donald Smith in those moments of agony passed into the vernacular of Canada, as the despatches of General Grant during the closing year of the civil war flew from lip to lip. And in the end Donald Smith and his associates triumphed; and the Canadian Pacific runs smoothly over prairie and by lake and past mountains from the Atlantic to the Pacific, opening up to the world that vast continent of millions of acres of the best land in the world."

REGINA AS AN INDUSTRIAL CITY

By G. F. C. POUSSETTE

REGINA, the capital of Saskatchewan, has become known as a model of town planning, but the feature of this organized development, which stands out first and foremost, is the industrial district.

Before Regina's most ambitious citizens had begun to think of Regina as a city of fifty thousand (the present population), large tracts of property were set aside by the townsite trustees to be used as parks, exhibition grounds, market place, etc. Included in these various areas reserved was a section of land, adjoining the main line of the Canadian Pacific Railway. Western towns usually start to grow from the first railway line that passes through them, and Regina followed this rule. The city has grown both north and south from the railway line, which is practically the centre. The section of land adjoining the railway line (the Canadian Pacific Railway was the pioneer road) on the north was kept by the city to be used for the purposes for which it had been set aside. As the city grew, the city council took its first step in the way of town planning, and the large area to the north of the C. P. R. main line was reserved for industrial purposes. Later the Grand Trunk Pacific and the Canadian Northern Railways constructed lines in such a manner as to almost surround this tract of land, and also constructed spur tracks to serve individual sites as the demand arose.

The Industrial Section.

It is in this area that one of the most economical industrial sections in Canada is located. Sites have been sold at a nominal price in order to prevent competition on the part of real estate men, and although a fair amount of property has been sold for industrial purposes, there is a considerable number of sites still available. Thirty-six factories and over 250 wholesale warehouses have been erected within the district. The amount of business handled by the implement warehouses at Regina alone during the past year amounted to over $25,000,000. Regina for several years past has had the honor of being rated the largest distributing point for farm implements in the world.

From a manufacturing standpoint, the city has already got a considerable number of substantial concerns; others have agreed to erect factories, included among whom are the M. B. Steine Company, of Montreal, and The Mickelson Gopher Poison and Stock Food Company.

New Factories.

One of the most recent additions to Regina factories has been the W. G. Downing Company's fine building. This structure was erected on Fifth Avenue, immediately west of Broad Street. It is four stories in height, with basement, and is of brick construction. This company will manufacture high grade boots and shoes. Until recently the Downing Company was located at Brandon.

There are two substantial foundries located at Regina—the Northwestern Iron Works and the Regina Foundry Company. In marble cutting, the F. Sack Company do a considerable business, both local and provincial. The A. Young stonecutting business, which last year employed only ten or twelve men, has now developed into a very substantial concern, where about four times as many employees are required.

Stamco of Regina, Ltd., has already gained a reputation as manufacturers of beds, springs, mattresses, tents and awnings, and not only handle a very considerable portion of the provincial business, but also ship considerable quantities of their wares outside the province.

One of the most up-to-date soap factories in Canada is located at Regina—the Young-Thomas Soap Company, which has grown rapidly since its establishment.

The city authorities co-operate to every possible extent in making it profitable for industries located at Regina.

Congestion of Freight.

When Regina began to assume an industrial standing there were no spur track facilities, and all goods had to be loaded at the freight sheds. This caused a congestion at the freight sheds, as teams were kept standing for a considerable time before being allowed to pull up to the unloading doors. There was a consequent excessive cartage charge. The system of spur tracks throughout the warehouse and factory district now makes it possible for each individual concern to load cars at their own factories, and by reason of the arrangement of the tracks much of the inconvenience caused by interswitching is done away with. The city council has under consideration a still further improvement which will mean much to shippers. It is proposed to have the spur track system electrified, and have such inter-switching as is necessary done by electric street cars operated under the Regina municipal street railway department. By this arrangement special attention would be paid to any interswitching that is necessary at nominal cost, thereby avoiding unnecessary delay.

Example of Town Planning.

The railways and the railway lines directly connected with this "town-planned industrial district" are: Canadian Pacific Railway—Main line east, Main line west, Regina-Bulyea line, Regina-Colonsay line, Arcola line, Weyburn line; Canadian Northern Railway—Regina-Prince Albert line, Regina-Winnipeg line, Regina-West line; Grand Trunk Pacific Railway—Regina-Melville-Winnipeg line, Regina-Boundary line, Regina-Moose Jaw line; Great Northern Railway—Regina-Minneapolis line (running rights in Canada over Grand Trunk Pacific Railway tracks).

With the completion of lines for which bonds have been guaranteed by the Saskatchewan Government there will be twenty-two railway lines radiating from Regina. Railways for which bonds have been guaranteeed and which have not yet been constructed are: Canadian Northern Railway—Regina to Edmonton, Regina to Minneapolis; Grand Trunk Pacific Railway—Regina to Brandon, Regina to Saskatoon, Regina to Lethbridge, Regina to Edmonton, Regina to Hudson Bay; Minneapolis and St. Louis Railway—Regina to Minneapolis line.

Railway Spending Money.

The importance of Regina as a railway centre to the Grand Trunk Pacific Railway may be recognized when it is considered that this company is erecting a twelve-story hotel at the present time, to cost over $1,000,000; also a station, power house, laundry and train sheds costing over $1,000,000.





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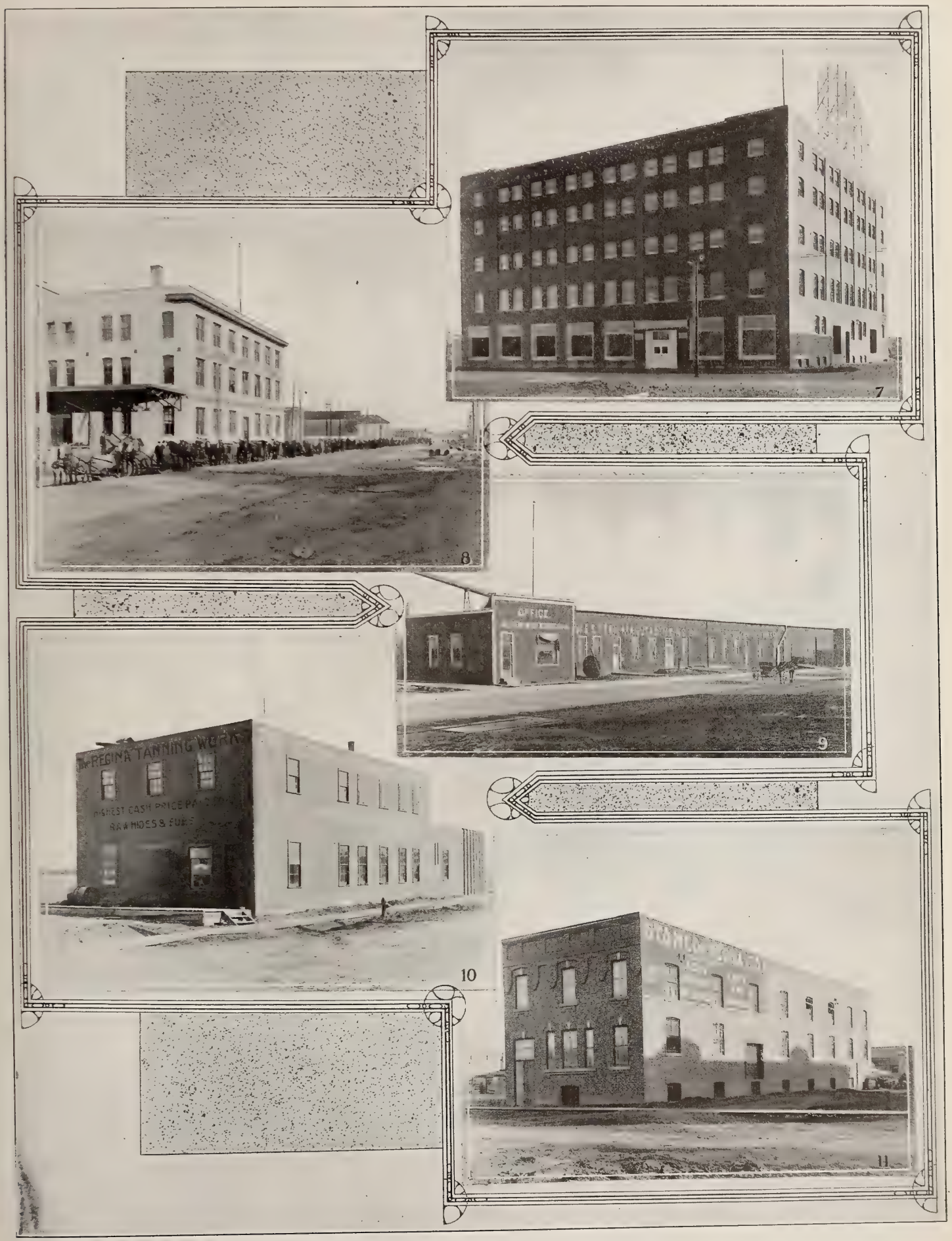


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SOME OF REGINA'S FACTORIES—THE WEST CAN DO MORE THAN GROW



GRAIN. FACTORIES ARE BEING RAPIDLY ESTABLISHED WEST OF WINNIPEG

WHAT MANUFACTURERS THINK CATALOGUES SHOULD BE

MANUFACTURERS depend on catalogues as silent salesmen who will be on duty so long as cover and pages hang together. Of those who are concerned in the designing, arrangement, engraving, printing and distributing of catalogues, manufacturers have the most at stake. The production of a catalogue may mean thousands of dollars in extra sales. In preparing our annual catalogue article for this issue, Industrial Canada decided to restrict its scope to the views of a number of manufacturers, who have expressed themselves as follows:

Opinion of Textile Company.

The Dominion Textile Company, Limited, Montreal:

"The subject of catalogues is a very complex one, indeed, and it would be rather difficult for anyone to lay down a set of rules to apply in general to all sorts of catalogues. Each catalogue must be studied according to the line of goods which it will represent and the class of trade which it is desired it should reach, and no doubt the issuer, being the party most vitally concerned, has taken the pains to examine carefully every phase of the question and may, therefore, be presumed to be in the best position to know what he should have. However, a few suggestions from the "other fellow," the prospective buyer of the goods catalogued, for whose edification and benefit (?) the catalogue is prepared, may prove interesting and helpful.

"In the first place, a catalogue must be useful or it will surely fail. We think that most catalogues are useful, but a good many might be made more useful. The length and amount of detail of descriptions must, of course, depend upon the goods catalogued, but let it be as complete as possible. Don't give anyone a chance to ask a question which would have to be answered with "it doesn't give it." Any technical information which may be of assistance to the buyer or user in the proper selection and use of the goods catalogued should always be included in a convenient part of the catalogue. The catalogue which is kept and which is referred to the most often is the one complete in every detail.

"Sincerity, truthfulness and modesty should be strictly observed throughout. Exaggeration will ultimately retard rather than further the true growth of business. We have often noticed that the greater a firm's known superiority in point of the quality of their goods, the more modest are their announcements and contentions.

"Titling or lettering of any kind on the outside of the cover will prove more permanent and legible if done in black ink. Lettering in white ink, although perhaps quite nice and fresh looking at first, soon becomes ragged, dirty and faint. Red and silver should also be avoided. Gold is the nearest rival to black, and might be preferred in some cases where an elegant outside appearance is desirable.

"The date of issue should always appear on the first page or on the cover of the book. A consecutive system of numbering each issue, either by numerals or letters, should be followed, and such number or letter should be plainly marked on the cover. If this is done, delay and confusion in ordering will frequently be avoided. It is surprising how often these details are omitted.

"Indexes should be placed in front of the catalogue. When inserted in the back one has to search for the index as well as the article. When convenient, a figure number reference should be given, and when the catalogue represents goods made by various manufacturers, an index to makers' names will be found useful.

"The quality of paper will depend upon the purpose and style of the catalogue, but no matter what the circumstances, it must be of a quality which will do full justice to the cuts and type. One cannot help but be unfavorably impressed with poor illustrations and printing. Illustrate whenever possible, using cuts reproduced from actual photos when practicable. Don't use a bad cut, better to do without.

"Full cloth is the style of binding generally used on catalogues intended for the use of manufacturers and serves its purpose admirably, remaining with fair usage in good condition during the lifetime of the catalogue.

"Lastly, and this is of the greatest importance, visit the plant of the printer and binder before you give him the order. Make yourself acquainted with the management and staff and familiarize yourself with their equipment. There is an immense amount of work involved in the compilation, arrangement and printing of most catalogues, and the successful and speedy execution of the work in all its many details will depend to a very great extent upon the intelligence, experience and earnestness of those who will be engaged in carrying out the work."

What Motor Companies Want.

The Russell Motor Car Company, Limited, Toronto:

"The chief business of a catalogue is to sell goods. Its failure, or success, is judged by that standard. Too, a catalogue is valuable in creating prestige and opening up the way for the salesman's visit. In either case the plan is the same. The manufacturer's catalogue must present the article to be sold in an honest and pleasing manner, for, in the last analysis the catalogue is the silent salesman, present when the personality of the salesman is withdrawn.

"The material to compose the catalogue varies each year according to the message it must contain. Anything that can be left out, and yet not detract, should be dispensed with. In our motor car catalogue we endeavor to represent the car as it is in actual daily use, suggesting by the use of backgrounds, etc., what we consider the ideal use for each car. Many parts are shown, because when the average man buys a car he wants to know all about it. But in any case the illustration is secondary to the representation of the motor car.

"In regard to arrangement. We spend a small proportion on the cover, preferring to use our appropriation on the interior of the book. We have found an overly elaborate cover tends to lessen efficiency. Simplicity and directness are the features we cultivate.

"In illustration, we endeavor to have our artist and printer interpret our ideas of what we wish brought before the public. Our main idea is to give an honest interpretation of our product, showing as clearly as possible the various sales points which are talked by our salesmen. In no case do we allow the work of the artist to predominate. Each illustration should play up a definite sales point, otherwise it cannot have a place.

"The engraving and printing processes must be done in conjunction. The time is coming when no one will think of placing a high-class catalogue with a house not equipped to handle all processes. The advantages of the complete press,



Samples of Catalogues Made by Brigden's Ltd., Toronto.

which assumes entire responsibility for art, engraving and printing, are numerous and convincing. This is the plan we try to follow.

"The engraving and printing must be good, for fine illustrations are of little value unless the former are entirely in harmony. We prefer plain, dignified pages, that reflect refinement and quality. The fantastic ornament, so dear to many printers, has little or no relation to the subject matter of the catalogue and should be discarded in favor of simple type arrangement.

"The proper distribution of a catalogue is most important. Our motor catalogue is sent to our owners—so far as we can locate them, to all prospects we know would be interested, and to actual enquirers. Recognizing the cost of catalogues, we endeavor to make sure that they will find their way only to those directly interested."

What Truck Builders Want.

The Gramm Motor Truck Company of Canada, Limited, Walkerville, Ont.:

"Usually a catalogue is made out to appeal to a certain class of trade in which a manufacturer is interested. In our business, which is that of making motor trucks, we sell our product to an indefinite variety of customers. We can put the matter shortly when we say that every user of horses and wagons is a prospective customer of ours, and horses and wagons are used in practically every line of business that has to contend with transportation.

"In former years we have gotten out large catalogues, dealing with the motor truck subject generally, but this year we have changed our attitude toward the catalogue proposition, and are now aiming to supply to enquirers only that kind of information which will be of use to them in their particular line of business. The purchaser of a motor truck for use in the ice business is not particularly interested in knowing how that same motor truck could be adapted for use in the furniture business or for carrying passengers. Being confronted with this situation, therefore, we find that it is impossible in one complete catalogue to conveniently or economically supply all this information in such shape that each individual enquirer can pick out what is applicable to his particular line of business.

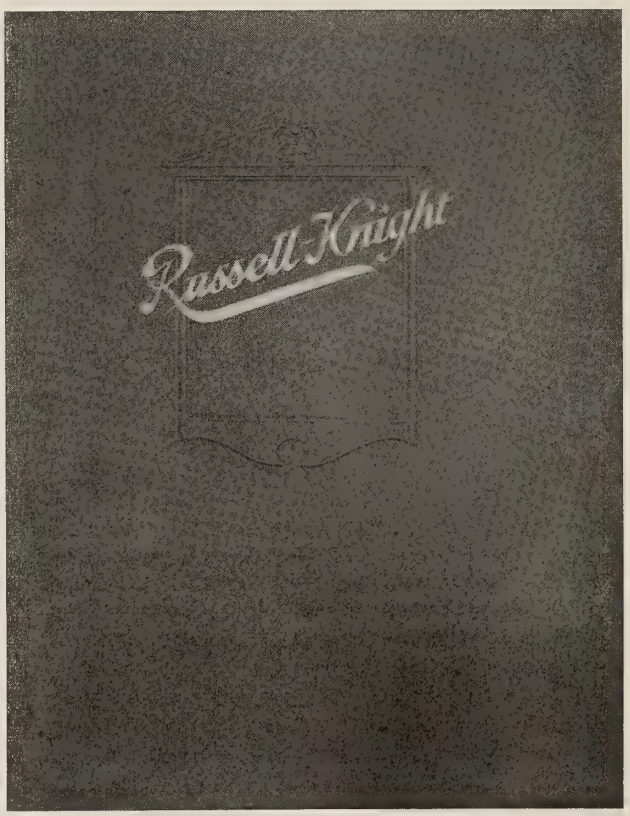
"The specifications of our chassis are standard for all purposes, and we have, therefore, confined our catalogue this season to a folder, giving an illustration of the general outlines of the Gramm motor truck, together with the chassis specifications of the various models, which will enable any inquirer to compare these specifications with any other make of motor truck. To supplement these chassis specifications we have also prepared a convenient form of special information and also special supplementary catalogues dealing with the use of our trucks in various lines of business, treating each subject independently. Furthermore, as our trucks are now being used by a great variety of businesses in Canada, we have photographs of our trucks in actual service in almost any kind of business that can be mentioned. Our method, therefore, of placing our product before an inquirer is to only send an inquiry from a brewery, for example, information in regard to our truck which is being used in the brewery business. We supply, of course, our regular chassis specifications, but to supplement this we give our inquirer special information in regard to what body equipment we would recommend for use in the brewery business, and we are also in a position to send at the same time, photographs of our trucks engaged in handling beer, either in barrels or cases, as used by some other brewery in the Dominion of Canada. You will see, therefore, that the information supplied to inquiry from a brewery company is specific, and he does not have to pick out what he requires to know from a lot of information dealing with the use of motor trucks in the ice business, or the coal business, or the wholesale grocery business, or some other line of business in which he is not interested.



Work of Reid Press, Hamilton.

"We believe that advertising matter, such as catalogues of any description, should not be gotten out at all unless gotten out in the very highest grade of work. Even our smallest folders we endeavor to have printed on the very best grade of paper, and to have the illustrations retouched to the very best effect, and our aim is to get out even our small printed matter just as carefully as we would if we were publishing a very elaborate and expensive large catalogue. In as much as catalogues, advertising matter, letter heads, etc., are, in some cases, the only medium of exchange between our company and inquirers, we deem it advisable that whatever printed matter we send out shall reflect, as far as possible, the quality which it is our continual aim to incorporate into our product.

"We are not in favor of large and bulky catalogues, as, apart from the heavy expense entailed in such publications, we are of the opinion that the purpose of a catalogue is to place a manufacturer's product before an inquirer in as concise form as possible. Our attitude toward the catalogue proposition will be doubtless different from that of a manufacturer whose goods are sold through a catalogue. Our product is of such a nature that sales through the medium of a catalogue are impossible, and, furthermore, the subject of the installation of a motor truck renders a personal consultation necessary in every instance."



Catalogue by the Southam Press, Toronto.

"In the first place, the material used should be smoothly coated paper, and the heavier the weight the better the illustrations. The arrangement of the book should not be too large nor bulky, and the interior arrangement, in our opinion, should be carefully done, that is, the catalogue should be so arranged that the lower-priced goods or goods of different lines should be grouped and arranged so that the goods run in rotation from the lower-priced to the higher-priced or *vice versa*.

"Illustrations should not be too large to be deceiving, nor should they be too small, but they should be clear and give good detail. This is one thing that, personally, we are always most particular about in issuing a catalogue.

"The printing should be plain, clear type and well arranged with the illustration. Personally we prefer no printing among the illustrations, but a separate sheet attached to each page containing the printing.

"In regard to the distribution, this should be handled with care. The item of catalogues absorbs too large an amount in most manufacturer's expenses to be distributed indiscriminately. A good careful mailing list, checked over at least once a week, will avoid any indiscrimination of this kind."

Ideas of a Furniture Company.

The Toronto Furniture Company, Limited, Toronto:

"There is no doubt that more of the publications take the waste-paper basket route than are used for the purpose they are actually intended, and that the fault is entirely with the house issuing them. A catalogue, if properly gotten up, is one of the best silent salesmen that can be utilized.

The Selling of Ventilating Systems.

The Canadian Sirocco Company, Limited, Windsor, Ont.:

"We do not issue anything in the nature of a general catalogue, but send out our printed matter in the form of bulletins. Where a customer or prospective customer is interested

in one line only, we send him the bulletin pertaining to same, or, where there is probably interest in several lines, the printed matter relative thereto is forwarded. In the case of large manufacturers likely to be interested in any or all of our lines, and architects and engineers, we send a set of these bulletins bound together in a cloth cover.

"So far as the preparation of the material is concerned, this is handled entirely in our own organization—merely the mechanical work of engraving and printing being done outside.

"Depending upon conditions, we either ask for quotations from several reputable printers on the basis of the specifications attached, or turn the copy and plates over to some printer with whom we have had satisfactory experience in the past."

Sheldons Limited, Galt, Ont.:

"Ours is a sectional catalogue, as we manufacture many different styles of machines, though they are of kindred purpose, being mainly for the handling and heating of air for various purposes, such as heating, ventilating and drying.

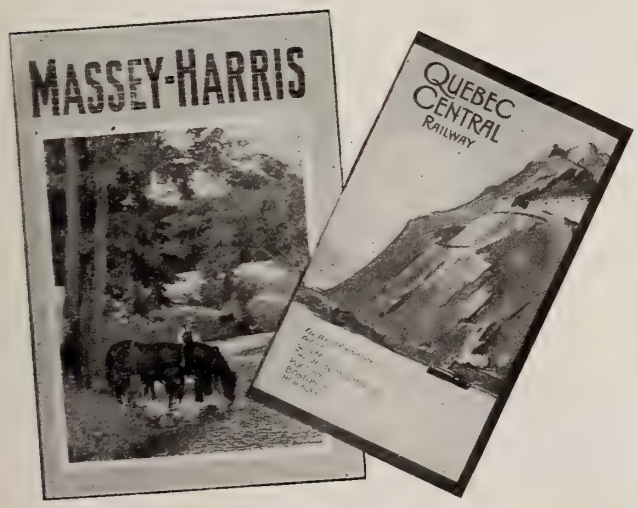
"Dealing with the latest acquisition that we are manufacturing, our catalogue will have a cover unique in design, showing the assembled machine arranged so as to immediately attract attention to the principal difference between it and machines of our competitors.

"We do not instruct a publishing house or advertising company in the intricate technical points of our various products. Instead, we have our own experts prepare the text in a simple manner, avoiding as much as possible any highly technical discussion. Yet, on the other hand, as our catalogues are filed in the offices of architects and engineers, we try to give them material that will be of value to them in making calculations concerning the application of the apparatus and considerable data showing its performance.

"In the arrangement we will start with a foreword, and in the case of a machine covered with patents, we would point out their priority or superiority—in a few words, point out distinctive features of construction.

"In the detailed description of construction we would so arrange same that in making reference to illustrations, diagrams, etc., these illustrations will appear on the same page as the text describing them. To accomplish this we prepare a "dummy" book with the text and illustration in proper relations as to positions. Our illustrations will be few and of the best, showing some high-class installations in good half-tone cuts.

"To give our customers the information of value to them it is necessary to prepare line drawings of all our machines



Samples of the work of Stone, Ltd., Toronto.

in their different arrangements and applications, with comprehensive over-all dimensions. This, with tables showing



Catalogues made by the Murray Printing Co., Toronto

capacities and performances, being the information mostly desired by our friends and customers, is given great space, approximately seventy per cent.

"While we want a well appearing and far from cheap publication, it will be our idea to avoid elaborate engraving, etc., but will use the best paper consistent with such work and aim to have a substantial and lasting publication, as it will not be frequently changed, except covering those machines that are being developed and improved from time to time.

"A great many manufacturers find it necessary to use color work in the body of their catalogues, but not so with us. We will use colors on the cover, but illustrations and decorations will be black on perhaps a tinted paper. Many lines of manufacture will require more catalogues than ours.

"All agents will be well supplied, and on receiving your inquiry concerning any particular machine, a catalogue descriptive of that particular machine will be mailed following the reply and quotation.

"Our agents and our home offices have complete mailing lists of their past and probable future customers. These are revised by our representatives locally and kept up-to-date. All of these addresses will receive new catalogues as they are published. Architects, engineers and large manufacturing concerns will receive the entire binder containing all the catalogues. Any interested party requesting same will receive one or all.

"It might be well to mention in passing that we are adopting a standard size of six by nine inches, and as the work progresses all of our catalogues will be that size."

Engine Makers' Needs.

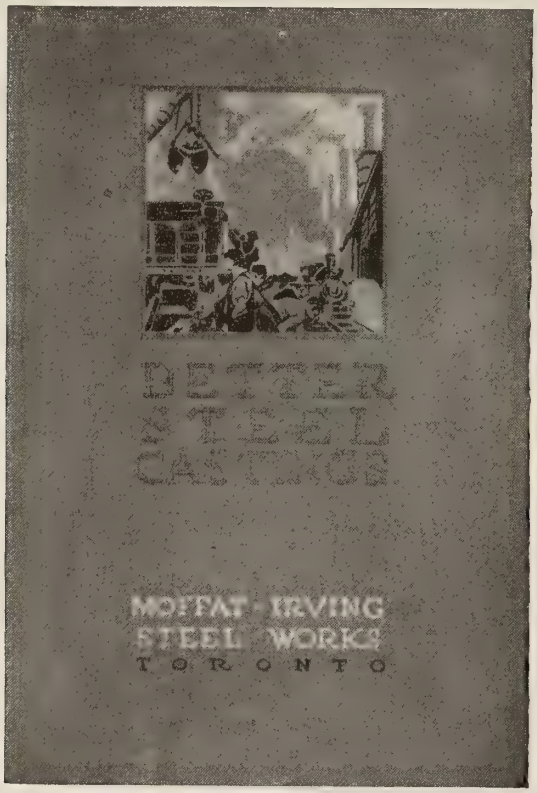
The Waterous Engine Works Company, Limited, Brantford, Ont.:

"Our catalogues are issued in bulletin form, one published to cover each machine we build, as it would be impossible to cover the various lines we manufacture in one general catalogue.

"Catalogues are arranged according to a set lay-out. They are printed standard letter size, generally in two colors. Very little space is given to anything but the matter in hand, the machines are described as carefully and as briefly as possible

We try to stick to the truth in our catalogue work and cut out the bouquets.

"Illustrations are made from our own photographs or drawings, and we pay the highest prices to get the very best engravings and the best of printing obtainable in Canada.



Designed by Southam Press, Toronto.

"Our only channels of distribution are in reply to enquiries for catalogues, or by using the bulletins as an enclosure to circular letters sent to our mailing lists."

How Agricultural Implements are Catalogued.

Massey-Harris Company, Limited, Toronto:

"As our line is so extensive and our business world-wide we find it impracticable to issue a complete general catalogue. Many of our implements are used only in certain countries, or certain sections, and in the case of others the equipment varies considerably for the trade in different parts of the world.

"In addition to printing a number of different editions of our catalogue in English, we also prepare catalogues in all the principal foreign tongues. Each edition of our general catalogue is intended to cover only such implements as are sold in the territory in which the catalogue circulates. The general line is covered in this way, but a number of special catalogues are issued, dealing more fully with some particular lines, as for example, plows, wagons, gasoline engines, etc., to supplement the information given in the general catalogue.

"In preparing a catalogue we first consider the cover, believing that an attractive cover is one of the first requisites of a successful catalogue. Pictorial covers are used very largely, but covers of a conventional character are interspersed to give a variety. In the case of pictorial covers, special care is taken to have the illustrations of a suitable character and in harmony with the subject matter of the catalogue.

"In the arrangement of the inside matter we strive, year by year, to give an entirely different appearance to the printed pages in the way of new illustrations or different arrangement of cuts and type matter. We also aim, so far as possible, to embody some special features, such as illustrations in colors, calendar inserts, etc., and we believe that our efforts in this way have been greatly appreciated and have been helpful.

"We are firm believers in detail illustrations emphasizing various special features or parts of machines, and use these very extensively. Necessity has driven us more and more to the use of half-tone illustrations, our natural preference being for wood cuts; but as wood engraving is becoming almost a lost art in Canada, we have taken up half-tone illustrations, with line cuts for certain sectional views, etc., which can be best shown in this way. We operate our own printing plant and lay more and more stress on quality, using good paper and insisting on first-class presswork.

"Distribution is a comparatively simple matter with us, inasmuch as we have a very complete sales organization, with local agents in practically every town of importance, and practically all our catalogues are distributed personally by these agents, although we do in certain special instances mail advertising matter to lists furnished us by our local representatives or received in response to our advertising, this method being used more especially in the case of special catalogues or new implements."

Waste of Catalogues.

That many catalogues never find their way to prospective purchasers is well known and good reasons for this unfortunate result are given in the following article recently published in a United States Consular report:

"The waste of catalogues and trade circulars, not to mention letters, addressed to merchants and business men in Central America, as well as other countries of Latin America, is enormous. The mails are loaded with them—beautiful catalogues, works of art in every respect, the highest type of the best efforts of printers, and exhibiting the most experienced thought and ability of experts. Most of these publications are alluringly illustrated, and in the United States prove valuable



Products of the Acton Publishing Co., Toronto.

and effective trade getters, yet in the Latin-American countries they are highly ineffective.

"Trade circular letters so prepared that a trained observer could hardly detect the mark of the mimeograph, or the fact that each one was not an original personal letter, also go to the waste-basket, mute evidence of misplaced energy and misdirected effort.

"Not only is the cost of these expensive catalogues to be considered, and the postage of five cents a letter, and more for the heavy catalogues, but there is the time spent in sending and the labor. The main feature, however, is the depressing effect of the lack of results and its inevitable tendency to create a pessimistic view of further attempts to build up trade in the tropics. Many houses in the United States have sent these handsome catalogues, have followed them up with carefully composed and perfectly appointed letters, but in the end have been unable to point to any return in the way of business. Is it remarkable? By no means; these catalogues and letters were all in English.

"Imagine a house in Central America sending catalogues to the United States, every word in pure Spanish, and following them up with letters, all in Spanish, and then expecting good results. How much consideration would be given a publication of the sort; how long would it be studied, with its price list in a foreign currency and its text in a language not a word of which could be understood?

"One reason for the disinclination to use catalogues, even when they are printed in Spanish, lies in the fact that the business men of Central and South America are not prone to act on the spur of the moment. If a mistake is made in the selection, if the goods should after arrival prove unsuitable, it is not so easy to get rid of them as in the United States. Therefore, careful deliberation is necessary and the placing of an order is considered from all angles. Preferably a line of goods should be introduced by the personal efforts of a travelling man or local representative. After the goods are known, or the line is familiar to the merchant, catalogues may be used, but not often otherwise; certainly not to a great extent if they are in English and necessitate the services of an interpreter."

The above ideas on catalogues, so clearly expressed by Canadian manufacturers, should be of interest and value to all other manufacturers who issue catalogues, and also to those whose business is connected with their production.

WILL FREE POWER FOR MANUFACTURERS PROVE A PROFIT TO MUNICIPALITIES?

The founders of the preplanned city of Lomax, Henderson County, Illinois, realizing the fact that the manufacturers' interests follow the centre of population westward, gave especial attention to ideal conditions for factories in outlining the plans of their model city.

They have, in unusual degree, the four greatest essentials for factory profits and comforts: Shipping facilities, power, labor, living conditions.

Their plans for factory encouragement are somewhat unique, inasmuch as they are furnishing power upon the following basis: They will give to each manufacturing plant free power for at least 90 years on the basis of one horsepower for each male employee, charging for additional power, at the rate of $20 per horsepower per year.

This, as well as the many other splendid provisions for a better city, is protected against future adverse legislation through a deed of trust which prohibits any change of plan.

Their factory district is separated from the residential district, and comprises several thousand acres of ideally-located land; and these locations will be built upon where desired, the manufacturer being allowed to pay for the site at acre prices, and the buildings at actual cost; paying as low as 2 per cent. per annum on this investment, until the entire cost price has been paid; when the property will belong to the factory owner. The spur and yard system for factory district is comprehensive and safe. Each factory will have its own trackage at the door, with a vast network in union yards. And still, this will be so enclosed that no one can possibly get on the track unintentionally, or meet with accident.

Labor problems are largely settled in advance by low rentals (based on 2 per cent. of actual cost) of workingmen's homes with no crowding, no tenement quarters, and a chance to buy and build on small rental basis, without cash.

The result of the free power plan will no doubt be watched with greatest interest by cities and manufacturers over the entire country, with a view to testing this method, instead of free sites or bonuses.

DEATH OF WILLIAM STEWART.

William Stewart, president of the Stewart Bottling Company, Limited, died at his home in Montreal recently. He had been engaged in the manufacture of aerated waters since 1868, and had the distinction of being one of the first manufacturers of ginger ale in America. He was born in 1846 in the town of Howick, County of Chateauguay.

CANADA'S FOREIGN TRADE.

During the first nine months of the present fiscal year the value of exports of Canadian products exceeds the value of exports for the same period of 1912 by more than eighty-one million dollars. During this period of 1912 the exports amounted to $307,652,157.00. For the like period this year they have grown to $388,707,375.00.

The imports during the same period have increased in value about $1,000,000.00. For the first nine months of 1912 the imports were valued at $516,619,896.00, and for the like period of 1913 the value is $517,532,214.00.

WELLAND'S GROWTH.

The growth of Welland, Ontario, in every branch of industry last year has prompted the Board of Trade to issue an unrestricted Dominion-wide challenge to any town or city to equal the report of the industrial commissioner from the point of prosperity.

The increase in manufacturing plants over the previous year was three. Number of employees on pay sheets 2,782, an increase over 1912 of 196. Total wages paid by 25 plants, $1,642,996.25; increase over 1912, $158,849.25. Total product shipped by 25 plants, $8,835,573; increase over 1912, $1,770,607. Total building permits, $614,157.50; increase over 1912, $141,413.50.



Too Busy to Scare.

WHAT THE C. M. A. IS DOING

By G. M. MURRAY, General Secretary

WHILE 1914 is still young and your book of engagements for the year has few entries, just turn over to June 16th, 17th and 18th and mark these days as reserved for the Canadian Manufacturers Association.

In all probability that is when our annual meeting will be held. Montreal is to have the honor of entertaining us this year—that was decided two months ago—but our friends there are a little uncertain as yet about the dates.

Under the by-laws the meeting must take place within six weeks succeeding May 1st. The time required for the preparation of reports and other preliminary work precludes any idea of meeting before June 1st. That restricts our choice to practically two weeks, from June 1st to June 15th, but the race meets at Blue Bonnets and Dorval will then be in full swing, and it is intimated that we might lose our quorum, to say nothing of worse things that might happen. Under these circumstances we will probably be forced to hold a pro forma meeting towards the end of May, and then adjourn till June 16th. But of this more anon.

Our Insurance Work.

Vital issues have been fairly crowding in upon us of late, but none has given us more concern than the re-organization of our Insurance Department.

For the past few years the general service we have given our members in the field of fire insurance has been subject to an arrangement with the Board of Directors of the Central Canada Manufacturers' Mutual Fire Insurance Company who, in return for a retainer of $2,000 a year, have had their staff attend to any commissions that we might turn over to them.

The Manager of the Company, Mr. E. P. Heaton, who had originally been engaged by us as Manager of our Insurance Department, was as a matter of courtesy continued under the old title when the above arrangement was entered into, but his financial responsibility was to the Company rather than to the Association.

In December last, after accepting Mr. Heaton's resignation, the Board of Directors decided to discontinue the operations of the company and to effect a speedy termination of its liability. The Association, therefore, found itself in the position of having to make new arrangements for the continuance of its insurance service.

Keeping Out of Insurance.

The way that first suggested itself was naturally to engage such members of the staff of the Central Canada Company as might be necessary to carry on the work. This, however, would have involved a much heavier outlay for salaries and other expenses than the Association could have taken care of out of current revenue, unless it was prepared to re-enter the insurance brokerage business in an effort to make the Department self-sustaining, a step which had formerly invited criticism even from its own members and from which criticism it had happily been relieved when the Central Canada Company was formed and took the brokerage business off its hands.

After the most careful consideration of what this would involve the Association chose the wiser course of leaving insurance as a business severely alone and of confining itself exclusively to furnishing its members with that kind of service which the Department was originally designed to afford.

A note of advice issued to members under date January 24th states that Willis, Faber & Company have been appointed Managers of the Department, succeeding Mr. E. P. Heaton, resigned.

Continuing, the statement reads as follows:

Announcement to Members.

"In making this announcement, your Committee desire to state that in their opinion the Association is to be congratulated on being able to secure the services of a firm of such high standing in the insurance world. During the seventy years that they have been established as insurance brokers, Willis, Faber & Company have built up a splendid reputation for themselves, not only as regards the volume of business handled, but in respect to the care with which they have looked after the interests of their clients. It is perhaps no exaggeration to say that they are one of the largest purchasers of insurance in the world to-day; through their good offices, therefore, members of the Canadian Manufacturers Association will be able to secure all the advantages of collective buying. Furthermore, their long experience and wide-spread operations have made them thoroughly acquainted with every detail of the insurance business, and that knowledge can be utilized and turned to excellent account by any member who cares to consult them.

"Under their management the Department will continue as before to give practical advice on all phases of insurance work. Policies will be examined to see that they afford the assured the protection he is paying for. Risks will be inspected and where possible improvements suggested that will carry commensurate reductions in rates. Advice will be given as to the standing of companies; where desired, whole lines of insurance will be re-arranged, either to obtain better protection or to effect savings in premiums. Tenders will be secured for the installation of sprinkler equipments in a manner that will secure minimum rates of insurance for the least outlay. Loss adjustments will be followed with care by men of experience who will endeavor to see that the assured receives everything to which he is entitled under his policies. All such services will be given members free of cost, by people who are thoroughly competent."

C. M. A. Disciplined Insurance Men.

The services referred to, with the exception of the actual placing of insurance, are those which were in contemplation when the Department was first started. And just here it is well to bear in mind, in view of the mass of criticism that has been levelled against the Association for the range of its insurance activities, that the initiation of its insurance service nine years ago, followed as it has been by a general awakening of Canadian insurance agents and brokers to the necessity of looking after the interests of the assured more intelligently and more energetically, has for all time placed the business community of this country under obligations to the Canadian Manufacturers Association.

It is not so very many years ago that insurance agency work was looked upon as a harbor in which all sorts of broken down business men might seek refuge. People thought that it needed no brains to be an insurance agent; all that one had to do was to collect premiums when they fell due and compensate one's self for the trouble involved by deducting a commission of 15 per cent. Such a thing as advising a property-owner how he could improve his risk and so qualify for a lower rate never entered the head of the average agent,

or if it did he hastened to forget it, for it simply meant reduced earnings for himself.

Business in New Basis.

That type of insurance man is now rapidly becoming extinct. Competition would sooner or later have relegated him to a back seat in any event, but by forcing the issue the Canadian Manufacturers Association has hastened his elimination and has raised the whole profession to a higher level. For the 15 per cent. commission paid the agent, the assured used to get no value whatever; now he gets some value, and in many cases good value. The insurance agent of to-day is making a real study of his business; he is trying to understand it in all its phases and to give his client the advantage of his information, realizing all the while that if he does not do so some other agent who is more enterprising will steal his client away from him.

If the Canadian Manufacturers Association Insurance Department had never done anything except putting such men upon their mettle and compelling them to earn their commissions by giving the assured in return some helpful service, it would have entirely justified its existence.

Workmen's Compensation.

The spectacle of two hundred and fifty manufacturers leaving their workshops and coming to Toronto at considerable sacrifice of time and money to voice their protests against the proposed Workmen's Compensation Bill must have had its effect upon the members of the Ontario Cabinet when they held their public meeting last month to hear what people had to say.

Elsewhere in this issue will be found a list of some of the principal objections which the manufacturers are urging against the bill. These are set forth in sober, dignified language as befits an organization of business men. Let no one imagine for one moment, however, that the placid exterior which the manufacturers have thus far been able to maintain is an indication that they are objecting to the bill merely because it is going to take a little more money out of their pockets. As a matter of fact the bill is so preposterous that one utterly fails to understand how a jurist of the eminence of Sir William Meredith would ever have allowed himself to become sponsor for it.

No one among employing interests is opposed to a reasonable measure that will ensure the payment of a moderate amount of compensation to the unfortunate dependents of those who lose their lives or are crippled in the pursuit of their employment. In proof of this they have intimated their willingness to go as far as any civilized country in the world has gone, and much further than most of them have gone. What they object to, however, is to be squeezed for further concessions that would handicap them so that they would be unable to meet competition from outside.

On account of the complexity of the subject, and the extreme difficulty of acquiring a grasp of all its details, we must be prepared to make some allowance for the apparent reluctance of the Government to take liberties with Sir William's magnum opus. But the Government will make a profound mistake if they assume that the manufacturers are objecting simply for the sake of objecting. If this bill is forced upon the Province it may be necessary for employers to retrench in ways which neither the Government nor the working people themselves at present contemplate. For example, manufacturers might be forced to eliminate from their employment the physically unfit and incompetent who are now retained as pensioners, but who might become a serious charge upon the compensation fund; or manufacturers might be forced to discontinue welfare systems now in operation. Other means of protection or of retrenchment will readily suggest themselves, all pointing to the conclusion that the ultimate results may be fraught with the most serious consequences.

Bonding via New York.

The Vancouver Board of Trade are urging the Minister of Customs to grant the application of the Maple Leaf Steamship Company for the appointment of a Customs Officer at New York under whose directions goods destined for British Columbia points can be transferred at that port from rail to boat. The application is based upon the precedent that similar arrangements have been in force for some years at Seattle for the transfer of goods routed over American railways to that point, to be carried thence by Canadian boats to British Columbia points.

Since the withdrawal of the Elder-Dempster service via Tehuantepec, the only water route to the West coast has been via the Horn, and it is in this service that the Maple Leaf line is engaged. With the opening of the Panama Canal it is probable that there will be a direct service from Eastern Canadian ports to Western Canadian ports via the new and shorter route, but for the present Eastern manufacturers are without the competitive rates which the granting of the Maple Leaf Line's application would afford. The Association is giving the matter close attention, but so far has not seen its way clear either to support or to oppose the application.

Technical Education.

There is very little doubt but that the Government at Ottawa, in its own good time and in its own good way, will do something handsome for the cause of Technical Education. It may not get round to it this session, but if it does not we may surely look for some pronouncement before it appeals to the country again.

The recommendations of the Royal Commission, while very excellent in their way, involve the use of machinery which some of the provinces might not be willing to accept. The Provincial Governments always have their hands out for more money, but on one or two occasions they have intimated very clearly that they do not care to take money that has a string attached to it. Unless the provinces were all to unite in asking the Federal Government to give effect to the recommendations of the Royal Commission, it is doubtful if the latter would be in any hurry to place themselves in a position where their offer might be refused.

The general favor with which the Agricultural Aid Bill of last year has been received is taken in some quarters as indicating the likelihood of a similar policy in dealing with technical education. Under this plan a single commissioner would be appointed charged with the responsibility of going carefully into any proposal which any municipality, any district or any province might bring forward, and so long as he was able to satsfy himself that the work was legitimate and desirable, the proper appropriation would be assured the province for the use of the municipality or district concerned.

To the public at large it is a matter of little moment what form the legislation takes. What the people of Canada are concerned with is results, and any measure that will enable them to obtain results will be most heartily welcomed.

Meanwhile steps are being taken to form an organization to be known by some such name as the National Society for the Promotion of Industrial Education, the purpose of which will be to advance the cause of technical education in every legitimate and practicable manner. Among other things it is proposed that it will engage lecturers to go about the country arousing interest in the subject by practical demonstrations of what other countries are doing. It will constitute itself a

bureau of information on every phase of the problem, and by means of a monthly bulletin keep the public posted not only as to what is being done, but what it is desirable to do, and the manner of doing it. Under its auspices conferences will be held periodically for an interchange of views and the further diffusion of information.

British Columbia Manufacturers' Association.

The newly formed Manufacturers Association in British Columbia has provincialized the "Made-in-Canada" cry. No one can reasonably find fault with the policy of encouraging home industry, whether by "home" we mean the village, the city, the county, the province or the country within which we live. The mistake the British Columbia people make, however, is in issuing literature which tends to create the impression that anything bought outside of the province is imported.

A placard for display in factories and workshops bears the following wording: "The Lord helps those who help themselves. That means YOU. Buy goods made in British Columbia and keep the boys busy in other factories and works in our Province. They will keep you busy. Full time means full pockets and happiness at home. Get the wife and kiddies to help. Don't let the outsider say his goods are better than what you make with your own hands. Buy imported goods and you admit he is right. Get the habit. It's up to you to keep the mare going. Ask for the Label."

Another hanger for use in retail shops displays the label of the Association, and goes on to say: "We sell British Columbia products. We guarantee the goods we sell bearing this label. See that you get it. We give the preference to the British Columbia article because we believe in supporting the payrolls of the Province in which we earn our living."

All of which is very enterprising, and would be very commendable if they would simply add a word of advice to the effect that when they could not get goods made in British Columbia they should ask for goods made in Canada.

Governmental Adherence to the Made-in-Canada Policy.

While on this subject, what a fine thing it would be if all government departments, whether Federal or Provincial, and all municipal undertakings could be conducted with a view to affording the maximum encouragement to home industry. As a matter of strict justice, this is no more than they should do, but those in authority have often hesitated to specify Canadian goods lest they play into the hands of a ring that would advance prices on them.

The Minister of Public Works, and the Commissioner of the Transcontinental Railway, in connection with contracts coming under their respective jurisdiction, have met the situation fairly by stipulating the use of Canadian produce and Canadian manufactured goods, so long as these can be obtained at reasonable prices, and in the quantities and at the times required; if Canadian tenderers are unable to meet these conditions, then the contractor may apply for and obtain authority from the Minister or from the Commissioner to go outside.

All the Canadian producer asks is a fair show, an open field with no favors except a sentimental preference for the product of home industry. The plan adopted in the instances referred to is a step in the right direction, and the Manufacturers Association will urge its adoption in all contracts to which any Canadian government or any Canadian municipality is a party.

Keeping Track of the Costs.

Printers, lithographers and others whose businesses come under the heading of Graphic Art have a proposal on foot to form themselves into a section of the Manufacturers Association, for the purpose of sharing the expense of employing expert cost accountants. According to the last census the printing trades of Canada are sixth among classified industries so far as capital investment is concerned, but only eighty-second as regards the profit returns. This disparity is accounted for by the assumption that the small printer bases his charges on an antiquated rule of thumb system which often deludes him into thinking that he is making a fair profit when as a matter of fact he is actually selling at a loss.

The sincerity of the printers is evidenced by the fact that they are prepared to go pretty deep into their own pockets to finance the undertaking, and if it materializes other trades will watch the experiment with close interest. The average buyer of printing probably thinks that prices are high enough as they are; on the other hand no one who is in business can reasonably expect to buy supplies regularly at less than the cost of production. If the printers have a real grievance, they are going about its correction in the right way.

The gigantic sum of $4,000,000 has been expended by the British Columbia Provincial Government upon road extension and improvement work within the boundaries of British Columbia during the past season, according to a statement just issued from the department offices of Hon. Thomas Taylor, Minister of Public Works. There is now in hand the sum of approximately $400,000 for maintenance during the winter months. There are in the province 18,000 miles of roads and trails.

REDUCTION OF EXPRESS RATES.

By an Order of the Dominion Railway Board, effective February 1st, reductions in express charges on packages of from 1 to 7 pounds are provided for. These reductions apply in the case of through movements handled by two or more express companies, that is to say, the reductions are in through rates.

Where the through rate per 100 pounds is 90 cents, the following reductions in the present minimum charge are made:

2 pounds	5 cents.
3 pounds	15 cents.
4 pounds	20 cents.
5 pounds	15 cents.
6 and 7 pounds	25 cents.

Where the through rate per 100 pounds is $1.00, reductions in the minimum charge are:

2 pounds	5 cents.
3 and 4 pounds	15 cents.
5 pounds	10 cents.
6 and 7 pounds	20 cents.

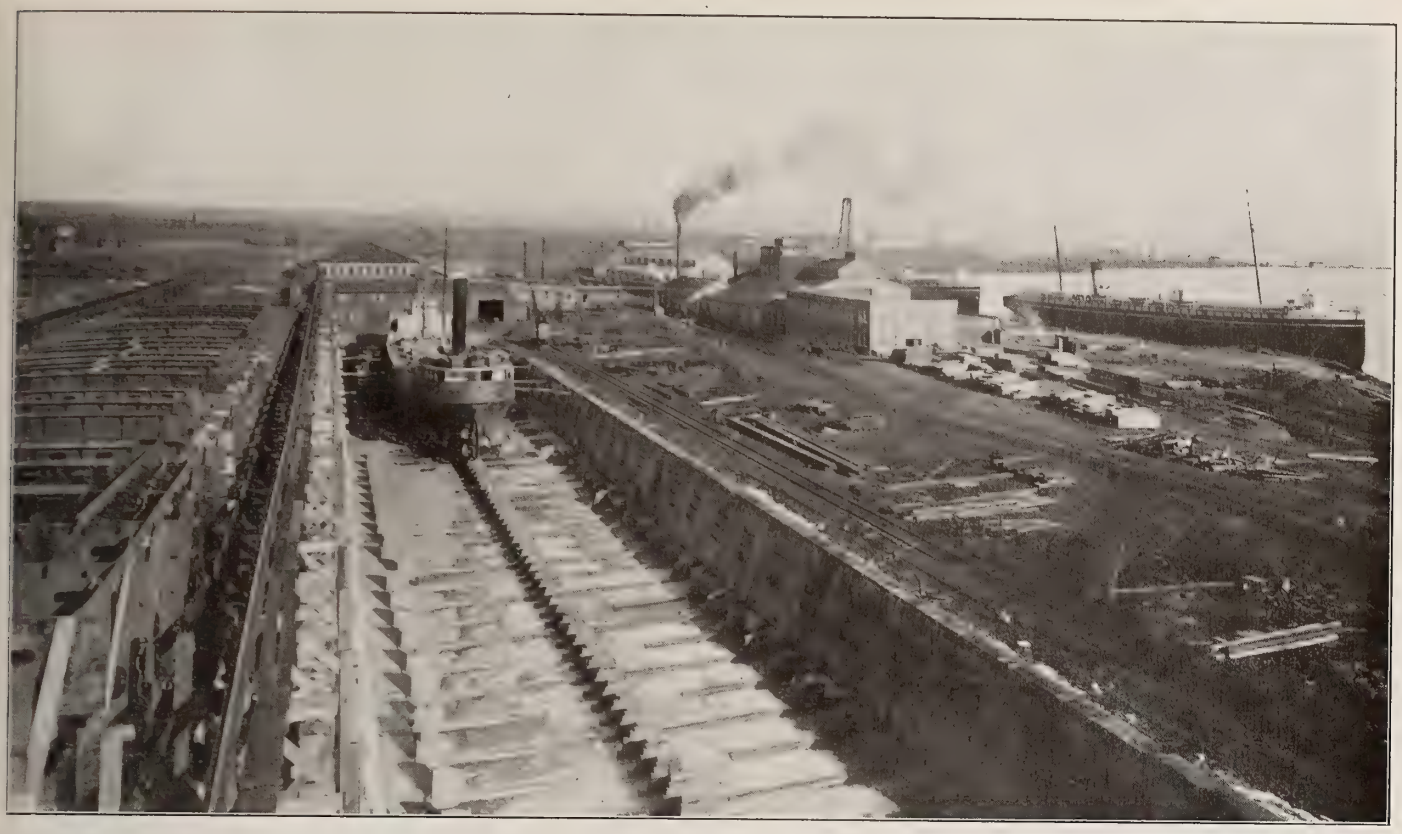
Where the through rate is $1.25 per 100 pounds, reductions in the minimum charge are:

2 pounds	5 cents.
3 pounds	10 cents.
4 pounds	15 cents.
5 pounds	10 cents.
6 and 7 pounds	15 cents.

Where the through rate is $1.50 per 100 pounds, reductions in the minimum charge are:

2 pounds	5 cents.
3 and 4 pounds	10 cents.
5 pounds	5 cents.
6 and 7 pounds	10 cents.

Where the through rate per 100 pounds is $1.75, there is, in the case of 2, 3, 4, 6 and 7 pound shipments, reductions in the minimum charge of 5 cents.



General view of the plant of the Western Dry Dock and Shipbuilding Company, Port Arthur, showing, on the left, the frame work of the hull of what will be the largest bulk freighter in the world, 625 feet long, entirely built at Port Arthur, to be launched in March 1914. In the centre foreground, the dry dock itself, 700 feet long, the largest in Canada. The size of this dock can be gauged from the apparent smallness of the Saskatoon, a large Merchants Mutual Line lake freighter, in dry dock for repairs: on the right, lying on the edge of lake shore, the two C. P. R. liners Athabasca and Alberta, which undergo extensive repairs, including new boilers. this winter

SHIPBUILDING IN PORT ARTHUR

THE Port Arthur dry dock, which is the largest industry at the head of the lakes, and employs 1,000 men the year around, is now busy constructing the largest bulk freighter in the world, which will be launched next spring. The dimensions of this new vessel are: length over all, 625 feet; length on keel, 604 feet; beam moulded, 59 feet; and depth moulded, 32 feet.

She will have a carrying capacity of over 9,000 gross tons, and has been designed to handle bulk cargoes of coal, ore and grain. The hull is built of steel on the Isherwood System, to Class 100 A at Lloyds, and on the arch and web frame system, leaving the holds unobstructed. There are 38 cargo hatches, spaced 12 feet centres, to facilitate loading and unloading operations, despatch in port being a matter of the utmost importance when the season is so short. The vessel is constructed with complete double bottom 5 feet 5 inches deep and side tanks of the same width to height of main deck stringer for water ballast, and forming a double skin over this portion of the ship to the point above the deep load line. The tank top is of very substantial construction to withstand the heavy service where clam shell unloaders are used.

For handling, the boat has the latest and most up-to-date compartments.

Owing to the immense size of this vessel, the accommodations for the crew and officers are much more commodious than is usually found aboard ship.

The Western Dry Dock and Shipbuilding Company, Port Arthur, has as part of its plant one of the largest dry docks in Canada, with dimensions 700 feet long, 98 feet 8 inches wide, and 21 feet 6 inches deep, holding approximately eleven million gallons of water. It takes only two hours and thirty-five minutes to pump the dock dry, with two 30-inch and one 8-inch centrifugal pumps, which are driven with electricity, like all the other machinery around the shipyard. The dock is large enough to dock any boat on the Great Lakes. The shipyard is a new and up-to-date plant with all the latest machines, and all the buildings are of brick with steel framing. The shops are: the machine shop, foundry, pattern shop, boiler shop, joiner shop, punch shop, and mould loft.

The whole plant is equipped with compressed air pipe lines, pneumatic tools and industrial railways, including an 80-ton capacity shear leg and electric gantry crane over a 750-foot shipbuilding berth.

The capacity of the Western Dry Dock and Shipbuilding Company was illustrated by the construction of The Noronic, the flagship of the Northern Navigation Company, which was built entirely by this Port Arthur plant. The Noronic took on a cargo of 2,500 tons of flour and proceeded east under her own steam to Sarnia, where she was handed over to the owners by the Port Arthur builders.

This ship is 385 feet long over all; 362 feet between perpendiculars; 82 feet moulded beam and 28 feet 9 inches moulded depth. She is built on the Isherwood System with watertight compartments, and has five steel decks, namely, main deck, spar deck, promenade deck, observation deck and boat deck. This boat is for the trade from Windsor and Sarnia to Port Arthur and Duluth. The propelling power consists of four Scotch boilers, with 200 pounds working pressure, all connected with forced draught. The propelling engine is a

vertical four-cylinder, triple expansion, and 5,000 horse power.

This new flagship, which is the largest passenger boat on



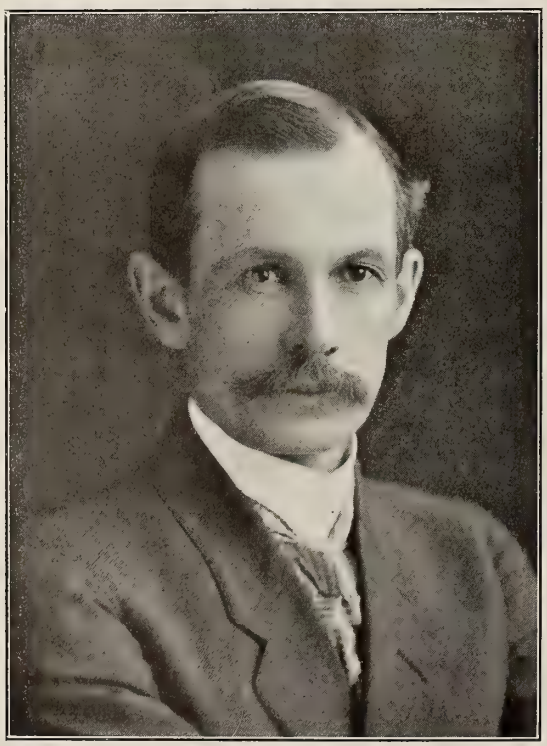
S.S. Noronic Leaving Port Arthur Harbor

the Great Lakes, was commenced October 24, 1912, was launched June 2nd, 1913, and left Port Arthur for Sarnia on November 25th, 1913.

MR. A. R. CLARKE.

When a boy of eighteen has a man's responsibilities placed upon his shoulders one of three things will happen—he will slip from under the burden, or he will sink beneath it, or he will carry it successfully to the cross roads and have it charged with an automobile. The third and happiest of these results occurred in the case of Mr. A. R. Clarke, President and Managing Director of A. R. Clarke and Company, Limited, Toronto.

At twelve years of age he began to work for his father, the late John Clarke, a leather manufacturer of Peterborough,

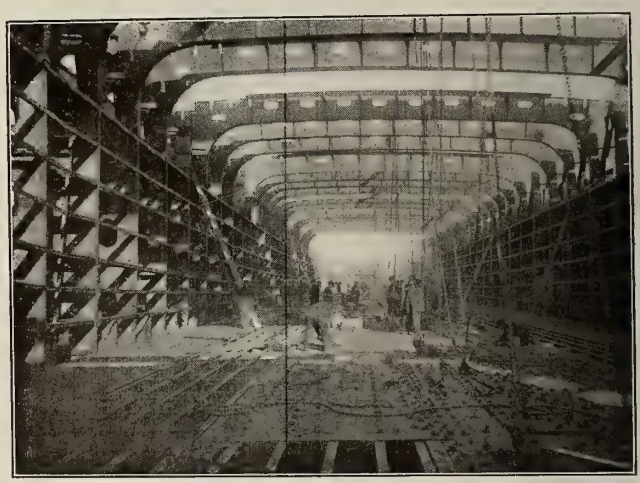


Mr. A. R. Clarke

Ontario. Six years later, on the death of his father, A. R. Clarke was left to conduct the business. This was done for five years under a partnership, Clarke & Johnson. In 1882 the business was removed from Peterborough to Toronto, where the second stage of transforming burdens into automobiles began. With the assistance of two brothers, F. G. Clarke and C. E. Clarke, the business was continued until 1899, when two stock companies (A. R. Clarke, Limited, and Clarke and Clarke, Limited), were formed. Needless to say, the business has increased enormously in output and variety since A. R. Clarke applied his eighteen-year-old brain to it. It is interesting to notice that he was one of the first to recognize the possibilities of the Western market, a fact which accounts to some extent for his success.

The automobile has arrived, and Mr. Clarke enjoys riding in it. A good game of golf also has its attractions for him, and he is frequently seen on the links of the Lambton Golf and Country Club.

In the affairs of the Canadian Manufacturers Association Mr. Clarke has recently taken an active part. He is an ex-Chairman of the Toronto Branch, and is at present a member of the Toronto Branch Executive, the Legislation Committee



Longitudinal view of the hold construction of the world's largest bulk freighter, which is being built at the plant of the Western Dry Dock and Shipbuilding Company, Port Arthur, Ontario, and will be launched in March, 1914

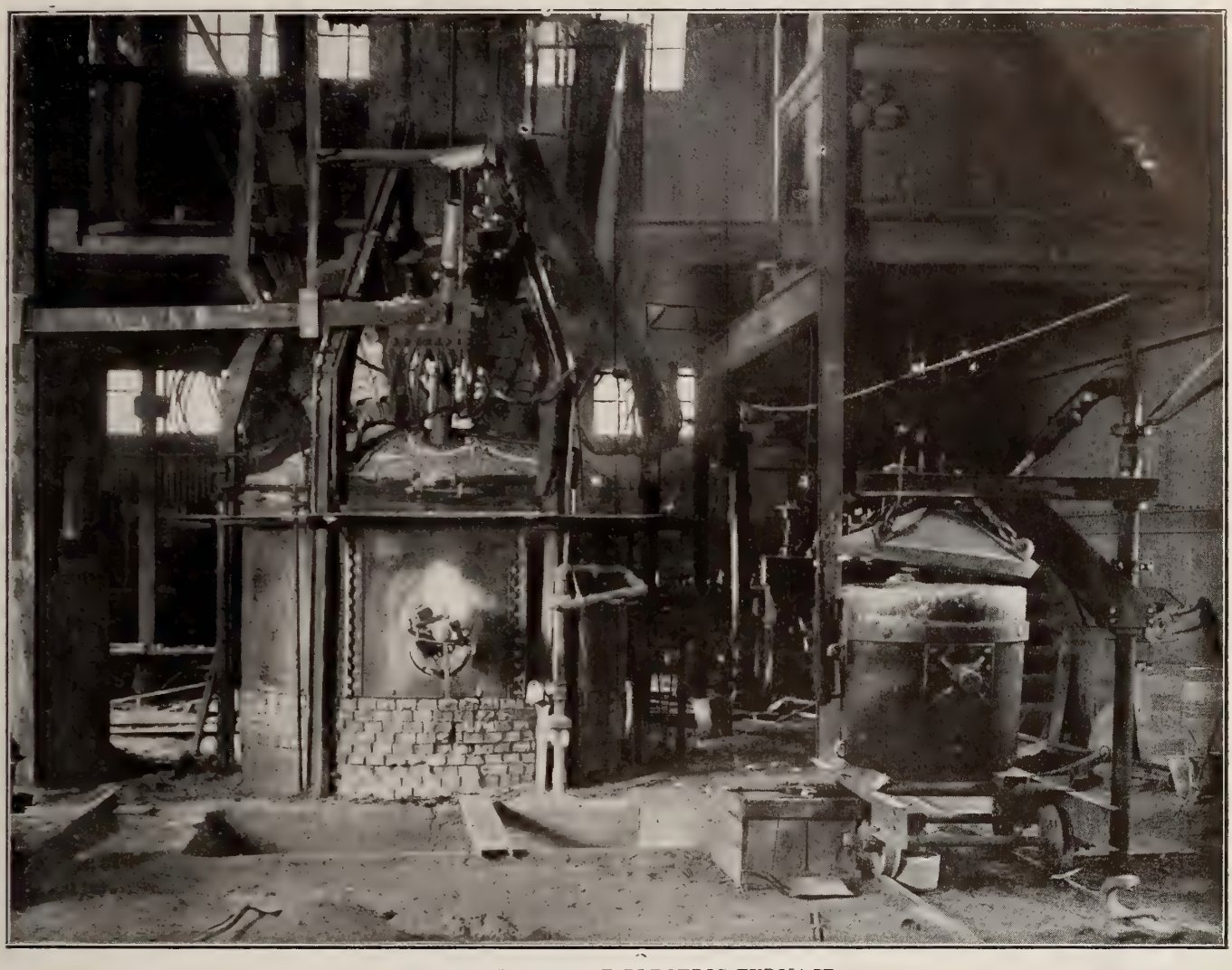
and the Executive Council. When the members of the new Executive Committee, which is the directorate of the Association, was elected at the beginning of the year, he was one of the successful candidates.

"If you want to get a thing done ask the busiest man in town," is an old proverb which has special application in the case of Mr. Clarke. His business, his recreations and his duties in connection with the Association do not occupy all his time. He is a member of the Ontario Fire Prevention Association, which is conducting a campaign against fire waste. As a director of the Toronto Housing Company, he is a student of the intricate problem of providing homes for workers at reasonable rents. Some of his other interests are indicated by the following offices which he holds at present: Director, Ontario Motor League; President, Riverdale Business Men's Association, Toronto; Governor, Canadian Credit Men's Association; and Treasurer, Metropolitan Methodist Church, Toronto.

And on election day he finds time to drop around to the poll and vote Conservative.

BRISTOL EXHIBITION.

An International Exhibition will be held in Bristol, England, from May until October, 1914. Among the patrons are numbered the most prominent men in England.



GENERAL VIEW OF ELECTRIC FURNACE

ELECTRIC FURNACE STEEL CASTINGS

By T. R. LOUDON, B.A.Sc.*

It is a well-known fact that Canadian iron ores are physically and chemically not suited for smelting in the ordinary blast furnace. For the most part these ores contain rather high percentages of undesirable elements, and in consequence magnetic separation has been tried to a considerable extent as a means of getting rid of a large quantity of the undesirable in these ores which are magnetic. Briquetting and nodulizing has also been tried where the ores are too fine for ordinary work; but, though technically successful, most of these methods of adapting Candian ores to general use have not met with great commercial success. Since the introduction of the electric furnace into the iron and steel industry, however, it has been well recognized that by utilizing electric energy as a source of heat, Canadian ores could be smelted. With this in view, the Dominion Government some years ago carried on an investigation along electro thermic lines.

In 1906 there appeared a report of an address by Dr. Haanel, given before the Canadian Club of Toronto. In this address Dr. Haanel outlined this investigation, that had been carried on at Sault Ste. Marie, and predicted that as a result of these experiments there was no doubt that the future was bright for electric smelting in Canada. These experiments referred to were carried on eight years ago. Since then practically nothing has resulted commercially. There is no doubt, however, that these experiments gave a great stimulus to the investigation of the electro smelting of iron ores. The successful process evolved by certain Swedish engineers is a direct result of the investigation made by the Canadian Government; but, curiously enough, there has been very little evidence of activity in Canada, although it is well known that a good deal of scientific research has been done.

Quite recently the announcement was made that the Moffatt-Irving Steel Works was in operation and ready to make and deliver steel castings. This company is the first in Canada to operate a commercial electric furnace steel plant.

The form of furnace adopted is shown diagramatically in Fig. 1. It is not the intention of this article to go into burdensome details. It is sufficient to point out that the furnace is designed to make steel direct from ore, the fine ore particles being fed into the upper stack as indicated. In falling the ore particles become pre-heated, and are finally reduced to iron in the lower level of the furnace.

It is well known that electric furnace steel has no superior. There are many reasons for this, all of which were well borne

*James, Loudon and Hertzberg, Consulting Engineers.

out in the work on this furnace. It was found that the steel could be refined down to a degree of purity not to be had under ordinary circumstances. The fluidity and soundness of

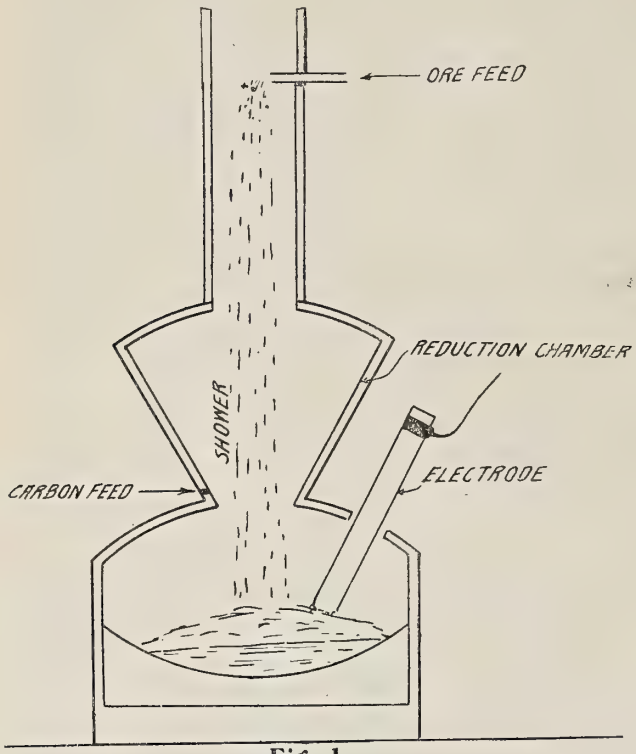


Fig. 1.

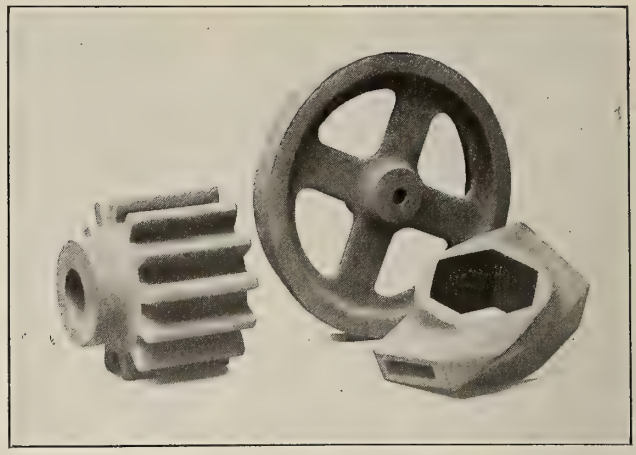
Diagram of Electric Furnace Showing System used in Reduction of Ore

the steel were also very marked. This, of course, turned attention to the advisability of using the metal in steel castings, as the user of steel castings knows of no more aggravating occurrence than to find, after machining a casting, that it is full of "blow holes." This is something that is almost unknown if electric furnace metal is used. In fact, in this particular instance the steel was found to be as good as high-grade crucible steel.

Fluidity of the steel during casting is something that is very easily attainable in the electric furnace, giving good, clean sharp castings. So clean and smooth were the castings turned out from this metal that it was difficult to convince some users that the castings were not made of gray iron. Indeed, it was only by breaking the metal and observing its extreme ductility that the truth was established. The fluidity of the steel also made it possible to make very accurately dimensioned castings. In one instance where a gear was cast, the manufacturer used the gear as cast, whereas formerly it had always been necessary to have some machining done on the metal.

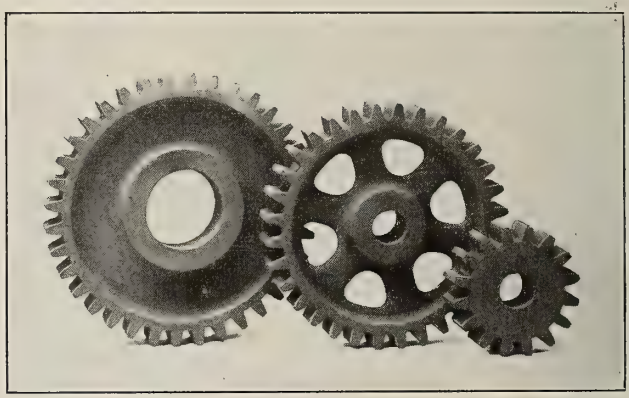
Many physical tests have been made by the writer on specimens of the steel, and it is found that the metal is certainly very superior, but these tests alone would not establish entirely the reasons for the behavior of the metal in service. It is only on the grounds of the purity and soundness of the steel obtainable in the electric furnace that these facts can be explained. It may be mentioned that some of this steel, in service where wear counts, has stood up six times as long as the steel product previously used. This is not meant to cast any reflection on steel made by the ordinary processes, but simply emphasizes the fact that the electric furnace ordinarily produces a superior grade of steel.

It is not necessary to point out to the manufacturer what a saving is effected by having sound, perfectly dimensioned,



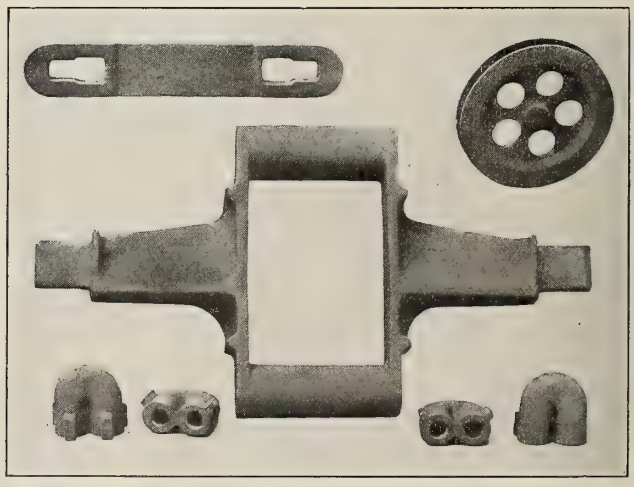
Pinion, Car Wheel and Clay Mixing Hub made with Electric Steel

clean castings such as are possible with this steel. Apart from the purely scientific interest attached to this new process,



Gears made with Electric Steel

there is the great economic question involved in the solution of the problem of using our Canadian ores. It is to be hoped



Conveyor Parts, Sheave and Locomotive Return Bands made with Electric Steel

that the future will see this new industry well established in wider fields throughout the country.

Parsons Motor Car Co. of Canada, Limited, are contemplating a factory at Windsor, Ont.

Contracts to be let shortly for winery for The Pelee Island Wine & Vineyard Company, of Grimsby, Ont.

CORK MANUFACTURING IN SPAIN.

Seventy per cent. of the world's cork is produced in Spain and Portugal. According to the best information obtainable, there was produced in Spain during 1912 approximately 78,000 short tons of cork, and it is estimated that the cork growers received an average of $57.90 per ton for this product, or $4,516,200 for the entire quantity produced.

The finest cork is grown in various sections of the provinces of Seville, Badajoz, Caceres, Cadiz, Huelva, and Cordoba, of this consular district, and in the provinces of Gerona, Barcelona, Castellon, Cludad Real, Toledo, Malaga, and Salamanca. The greater part of the finest cork, however, grows in the neighborhood of Barcelona, and most of the low-grade cork is produced in the Seville district, where there are 305 cord factories, large and small, for the manufacture of corks and cork disks and for preparing corkwood for export; these factories are distributed in forty-eight towns.

There are 507 cork factories in thirty-one towns in the provinces of Barcelona and Gerona. In other provinces of Spain there are eighty factories in twenty-eight towns. The total number of cork factories in Spain, then, is 892, in 107 towns of the kingdom. These factories produce for export 8,964 tons of cork, 746 tons of small squares, 583 tons of other manufactured cork, and 50,198 tons of corkwood and cork waste, of which products Seville exports 15,110 tons.

The total value of the cork exports of Spain during 1912 was $9,553,969, divided as follows: Corkwood, $528,810; small squares, $356,229; corks, $7,864,299; other manufactures, $49,783; cork waste, $754,848. About 5,500 tons of cork sawdust are used in Spain annually in packing fruits for shipment. Some 40,000 persons are employed in some manner in the cork industry in Spain, with an average wage of about $0.67 per day.

NEW MANUFACTURING COMPANIES.

The Following Companies have been Recently Incorporated for Manufacturing in Canada.

Russell, Jennings Manufacturing Co., Ltd. (tools), St. Catharines, Ont.; capital $50,000.

Fraser & Chalmers of Canada, Ltd. (machinery), Montreal, Que.; $100,000.

Oil Processes, Ltd., Ottawa, Ont.; $1,400,000.

American Titanic Iron Co., Ltd., Quebec, Que.; $1,000,000.

Victoriaville Bedding Co., Ltd., Victoriaville, Que.; $150,000.

Mount McKay Products, Ltd. (brick and tile), Fort William, Ont.; $600,000.

Commercial Account Registers, Ltd., Toronto, Ont.; $100,000.

Sulphur Products, Ltd., Toronto, Ont.; $150,000.

The Canadian Oak Leather Co., Ltd., Brantford, Ont.; $100,000.

The Dart Cycle Car Co., Ltd., Toronto, Ont.; $100,000.

The Credit Valley Stone Co., Ltd., Toronto, Ont., $250,000.

Pneuma Tubes, Ltd., Toronto, Ont.; $1,000,000.

Cambridge Knitting Mills, Ltd., Three Rivers, Que.; $50,000.

Shaw-Wood Knitting Mills, Ltd., Woodstock, Ont.; $50,000.

The Aetna Mineral Water Co., Ltd., Three Rivers, Que.; $49,500.

The Canadian Last Block Co., Ltd., Montreal, Que.; $50,000.

The Hepworth Silica Pressed Brick Co., Ltd., Hepworth, Ont.; $125,000.

Galt Knife Co., Ltd., Galt, Ont.; $50,000.

Solo Player Piano Co., Ltd., Clinton, Ont.; $40,000.

Grandview Iron Works, Ltd., Vancouver, B.C.; $25,000.

Vancouver Iron & Metal Co., Ltd., Vancouver, B.C.; $25,000.

The Canadian Mantel & Refrigeration Co., Ltd., Hamilton, Ont.; $100,000.

The National Vending Machine Co., Ltd., Toronto, Ont.; $100,000.

New Ontario Pressed Brick Co., Ltd., Sudbury, Ont.; $150,000.

The Eastern Canneries, Ltd., Georgetown, P.E.I.; $100,000.

The Winnipeg Grass Rug Co., Ltd., Winnipeg, Man.; $100,000.

Lodar Non-Animal Casing Co., Ltd., Toronto, Ont.; $50,000.

The Eureka Fence Brace Co., Ltd., Essex, Ont.; $20,000.

Canadian Kennedy Manufacturing & Engineering Co., Ltd., Niagara Falls, Ont.; $40,000.

Hamilton Molybdenum Alloys Co., Ltd., Hamilton, Ont.; $500,000.

The Windsor Milling Co., Ltd., Windsor, Ont., $100,000.

Canadian Copper & Armour Plate Co., Ltd., Toronto, Ont., $1,000,000.

Todhunters, Limited (groceries), Toronto, Ont.; $1,000,000.

The Dominion Milk Flour Co., Ltd., Listowel, Ont.; $100,000.

The Gardner Basket Co., Ltd., St. Catharines, Ont.; $45,000.

La Campagnie J. A. Gaulin, Limiteé (agricultural implements), Beauport, County of Quebec; $49,900.

The Warwick Woolen Manufacturing Co., Warwick, Que.; $49,900.

"Economical Gas Light & Power Co." (peat and peat machinery), Montreal, Que.; $1,000,000.

NEW BOOKLET ON NOVA SCOTIA MANUFACTURING.

An effort has been successfully carried out to demonstrate to the world the progress that Nova Scotia has made in the field of manufacturing. We refer to a book entitled "The Industrial Ascendency of Nova Scotia," which has recently been published by the Nova Scotia Branch of the Canadian Manufacturers Association. This volume is a picture story of the principal manufactories in Nova Scotia and we are sure it will prove an eye-opener to many in this Province to see the development of the manufacturing industry in Nova Scotia, particularly in such centres as Amherst, New Glasgow and Sydney. An impression has existed among some people that Nova Scotia is not a manufacturing province. Such an impression will certainly be dissipated in the minds of those who peruse this finely illustrated publication.

The contest for business to-day is as strenuous between countries as it is between individuals, and the same qualities that count for the success of the individual in the competitive field count equally for the success of a province or nation. The more a man becomes known for efficiency in what he is attempting to do the more business is likely to come his way. Consequently, as Nova Scotia becomes recognized more widely as a place where manufacturing can be done successfully, the confidence of outsiders will be correspondingly enlarged. Wherever this booklet goes it will be an ocular demonstration of the progress that Nova Scotia has made in the creation of factories. Indeed the volume is designed not only to change the opinion of those who think of Nova Scotia as merely a producer of fish, farm products and lumber, but also to induce an interest among capitalists in the establishment of additional factories in that province. A copy may be obtained by writing the Secretary of the Publicity Committee, Nova Scotia Branch, Halifax.

A. G. Spalding & Bros. contemplate building a factory next year at Brantford, Ont.

A business block, cost $100,000, is being erected for F. W. Carling, Metropolitan Building, Ottawa, Ont.

TRANSPORTATION

By J. E. WALSH

DURING the year covered by period from 1st April, 1912, to 31st March, 1913, the Dominion Board of Railway Commissioners held 102 public sittings, at which 698 applications were heard, as compared with 89 sittings for the previous year, at which 695 applications were heard. The number of public sittings held in the various provinces were as follows:—

In the Province of Ontario	64
In the Province of Quebec and Maritime Provinces	13
In the Province of Manitoba	3
In the Province of Saskatchewan	7
In the Province of Alberta	6
In the Province of British Columbia	8

And one in the North-west Territories at Le Pas.

The applications heard included a variety of matters falling within the jurisdiction of the Board under the Railway Act, from the complaint of a private individual to matters of more general public interest affecting the community at large, such as express rates, railway company's tariffs, telephone rates, telegraph tolls, and matters pertaining to the operation of railroads generally. The number of general orders issued by the Board was seven, and the number of general circulars issued by the Board to all railways subject to its jurisdiction was fourteen. The total number of orders issued by the Board for the year was 2,785, a slight decrease from the preceding year. In addition to the matters heard at formal sittings of the Board there are a large number of informal matters dealt with, that is to say, of a total of 5,751 applications and complaints dealt with by the Board only 8.2 per cent. were set down for formal hearing, and 91.8 were disposed of without a formal hearing. These informal complaints, which are settled without the necessity of a formal hearing, oftentimes entail a very considerable amount of correspondence and enquiry on the part of the Board's officers.

A list of the formal complaints heard at sittings, together with the disposal thereof, is set out in detail in the Board's report.

Traffic Department of the Board.

The number of tariffs received and filed for the year ending 31st March, 1913, were as follows:—

Freight tariffs, including supplements	49,200
Passenger tariffs, including supplements	6,774
Express tariffs, including supplements	17,994
Telephone tariffs, including supplements	2,051
Sleeping and parlor car tariffs, including supplements	22
Telegraph tariffs and supplements	17

Making a total of 76,058, or a grand total to date, that is to say, from the 1st of February, 1904, to the 31st March, 1913, of 394,989 tariffs.

Engineering Department of the Board.

A large number of inspections were made covering the Dominion. These inspections for the year ending 31st March, 1913, number 316, and include inspections of bridges, subways, highways, and farm crossings, interlocking plants, opening of lines for traffic, culverts, fences, cattle guards, etc.

In this department is included the investigation of accidents, car service, condition of rolling stock, etc. It will be noted that the total number of killed and injured, reported by the various railway companies under the jurisdiction of the Board, for the year ending 31st March, 1913, was 2,547, that is to say, 643 persons were killed and 2,231 were injured. Of the total of 643 persons killed 250, or approximately 39 per cent. of the total, were trespassers on railway tracks. Twenty-one passengers, were killed, or 3.26 per cent. of the total. Of this total of 21 passengers killed it appears that 15 met their death by what would appear to be preventable causes on the part of the passengers themselves, such as falling off trains while in motion, endeavoring to board trains in motion, and endeavoring to get off trains in motion, so that the actual number of passengers killed in what might be termed preventable causes on the part of the railway companies was only six, or less than 1 per cent. of the total number of 643 persons killed. The railway employees killed number 303, or 47 per cent. of the total. Of the total injured 410, or 17.9 per cent., were passengers, and of this number 75, or 18.3 per cent., were injured from preventable causes on the part of the passengers injured, such as attempting to get off and on trains in motion. Of the total of persons injured 1,603, or 71.8 per cent., were employees of the railway companies. It will be noted that of what may be termed the preventable loss, 250 killed fall under the heading of trespassers, which is a very large percentage of the total killed, and in this connection the Board has taken up with the Attorney-Generals of the various provinces the question of prosecuting trespassers on railway property, with a view to limiting the large number of fatalities which occur in this way. The following table shows the totals by provinces as regards trespassers killed and injured:—

	Killed.	Injured.
Ontario	132	62
Quebec	35	21
Alberta	19	7
Saskatchewan	14	10
British Columbia	31	7
Manitoba	14	6
New Brunswick	4	2
Nova Scotia	1	1
Yukon	1	—
	250	116

Fire Inspection Department of the Board.

The organization of this department was proceeded with immediately following the issuance of Order of the Board No. 16,570, dated 22nd May, 1912, which deals with the question of fire protection generally throughout the Dominion. During the season of 1912, it appears from the report that 200 fires were reported as started within 300 feet of railway tracks, and the classification of the causes of the fires shows that 164 are credited to trains, and the balance of 36 are ascribed to tramps, camp fires and unknown causes. The acreage burned over by the fires outside of the right of way of cultivated land is 4,135 acres, of young forest growth 17,017 acres of timber land, 1,322 acres, and of slash or old burn, not re-stocking, 2,674, making in all a total of 25,146 acres visited by fire. The total value of the property destroyed by fire, as reported, is estimated at $88,480. These figures relate only to lands adjacent to lines of railways subject to the Board's jurisdiction.

TARIFF

By J. R. K. BRISTOL

UNDER Section 47 of the Southern Rhodesia Order-in-Council of 1898, catalogues, the produce of the United Kingdom or British possessions, may enter Southern Rhodesia without duty; but catalogues sent into the union of South Africa are subject to the duty of 25% *ad valorem*, or 2d. sterling per pound, whichever rate returns the higher duty. There is a preferential rebate of 3% *ad valorem* on such catalogues when imported into the union of South Africa under the British Preferential Tariff.

British West Indies, including British Guiana.

The forms of certificates of origin required to be furnished for the entry of goods under the British Preferential Tariff when shipped into the various West Indian Colonies (including British Guiana) are as follows:

FORM I.

Certificate of Origin for Entry under the Canada-West Indies Preferential Tariff for Articles *consigned direct* from the Country of Origin or Manufacture.

I.....hereby certify that I am (1)..... of .....the exporter (s)..... of the articles included in this certificate, and that I am duly authorized to make and sign this certificate on behalf of the said exporter (s).

I have the means of knowing, and I do hereby certify that the merchandise designated below is of (2)..... growth, produce or manufacture, which merchandise is to be shipped to (3).....consigned to....., merchant at (4).....

And I further certify that I have the means of knowing, and do hereby certify that in the case of manufactured goods a substantial portion of the labor of (5)..... has entered into the production of every manufactured article included in this certificate of origin, to the extent in each article of not less than one-fourth of the value of every such article in its present condition.

.....Name and address of exporter.
.....Port of shipment.

Marks.	Numbers.	Number and Description of packages and description of goods.	Quantity.	Value.

So certified under my responsibility.

.....Signature.

Dated at.....this.....day of.....191..

(This Certificate ceases to be valid after six months from date of issue.)

FORM II.

Certificate or Origin for Entry under the Canada-West Indies Preferential Tariff of Articles *Not Consigned Direct* from the Country of Origin or Manufacture.

(To be attested to in British Countries before a Collector or other principal Officer of Customs, Notary Public or other official authorized to administer oaths, and in other countries before a British Consul.)

I.....certify that M..... being a duly authorized representative of M..... ..... (Producer or Manufacturer, Merchant or Trader), of.....has declared before me on his responsibility that the merchandise designated below is of (1).....growth, produce or manufacture, as shown by reliable invoices presented to me by the exporter, which merchandise is to be shipped to (2)..... consigned to.....merchant at (3)....., and he further declares that in the case of manufactured goods a substantial portion of the labor of (4)..... has entered into the production of every manufactured article included in this certificate of origin, to the extent in each article of not less than one-fourth of the value of every such article in its present condition.

He also declares that the undermentioned goods are in the original packages in which they were exported from..... ....., and that such goods have been under continuous Customs supervision while in ....., and have not been altered in nature, quality or value since their exportation from .....

.....Name and address of exporter.
.....Port of shipment.

Marks.	Numbers.	Number and Description of packages and description of goods.	Quantity.	Value.

So declared under my responsibility.

.....Signature of Declarant.
.....(Signature and Seal, if any, of issuing Authority.

Dated at.....this.....day of.... .....19....

(This certificate ceases to be valid after six months from date of issue.)

(1) Country of origin or manufacture.
(2) Port of ultimate destination.
(3) Address.
(4) Country of manufacture.

The West Indian Colonies which extend Preferential Tariff treatment to certain Canadian products are:—

Trinidad and Tobago.
British Guiana.
Barbados.
St. Lucia.
St. Vincent.
Grenada.
Leeward Islands.
Antigua.
St. Kitts.
Dominica.
Montserrat.

Note.—The certificate of origin should be written, printed or stamped on the invoice, and formally signed by the exporter.

The Customs administration of Turkey has just issued a circular enumerating the following list of agricultural machinery which is admitted free of duty. This list includes every kind of agricultural appliance for plowing and tilling, sowing, manuring and reaping as also threshers, binders, hay makers, straw cutters and presses, winnowers, separators, grinders, rice cleaners, potato and beet planters and diggers, pulpers and slicers; oil presses and filters, wine presses, cotton separators, root extractors, pulverizers and sprinklers, cream separators, churns, mixers, centrifugal pumps for irrigation and water supply, incubators, breeders, metallic and patent bee-hives and accessories, autoclaves and other appliances for drying and preserving fruits and vegetables, portable engines, horse gears and agricultural motors.

(*Continued on page* 922b.)

INSVRANCE

THE damage occasioned by forest fires in Canada during the past season was probably the lowest on record. On Dominion Crown Lands in the West the area burnt over was not greater than two one-hundredths of one per cent. of the total area under protective patrol, and similarly low losses are reported by the fire-wardens of British Columbia, Ontario, Quebec and the Maritime Provinces. Thus it would seem a mistake to place a higher fire-risk on forest property than on town and city property, for even under the present methods of forest protection, which are far below their highest practicable efficiency, the loss from fire represents a smaller percentage of the total wealth of the forest property than it does of property in settled communities.

In the United States, where the forests are little, if any, better protected from fire than in Canada, it is possible for lumbermen to raise money on their forest assets by means of timberland bonds issued by responsible financial houses. They represent from 50 to 75 per cent. of the market value of the standing timber and are gradually paid from the proceeds of its manufacture. Wherever adequate equipment and patrol are provided for, the fire risk is considered negligible, whereas the security is ample, for the value of standing timber in the United States has doubled in the last seven years. The amount of timberland bonds now outstanding in the United States is somewhere in the neighborhood of $150,000,000.

In Europe forest fire insurance companies were in existence as early as 1885. In Norway, where conditions most nearly resemble those in Canada, the best results have been obtained from fire insurance societies formed through the co-operation of forest owners. These, for a premium never higher than 3 per cent., afford partial compensation for losses from fire and make possible the obtaining of credit on forest mortgages. In Canada, lumbermen have already successfully co-operated to secure adequate forest fire protection on their timber limits. Co-operative fire-insurance seems equally feasible.

Life insurance in force: United States (including assessment insurance) is $28,213,218,530; Great Britain, $5,870,212,000; Germany, $2,810,346,000; France, $762,300,000; Scandinavia, $350,000,000; Switzerland, $259,337,771; Russia, $400,000,000; Japan, $240,076,652; Austria, $1,012,340,000. The life insurance of the people of the United States is more than double that of all the rest of the world combined.—*Insurance Review.*

At the request of the lumbermen of British Columbia the Western Forestry and Conservation Association held its annual meeting in Vancouver. This Association represents a body of over four hundred lumbermen in Idaho, Washington, Montana, Oregon and California. The chief purpose of its organization was to secure adequate protection from forest fires, the money being provided by an assessment based on acreage of holdings. The total area controlled by this Association is about 20,000,000 acres, containing fully 500,000,000,000 feet of lumber, one-fifth the total timber wealth of the United States and almost as much merchantable timber as there is in all Canada.

This Association, at an average cost of between two and three cents per acre and an aggregate cost of about $200,000 maintains about 600 regular patrolmen, besides a large reserve force for emergencies, has built several hundred miles of trails and telephone lines and has installed numerous tool caches and lookout stations. Large sums have also been spent on educational work. Mr. E. T. Allen, the Forester for this Association, speaking of the fire loss on this immense timber tract in 1913, says: "Reports to date on destruction of merchantable timber estimate it at three million feet, worth perhaps $5,000." One thousand five hundred potential forest fires were extinguished.

This is the largest co-operative association of its kind in the world. Probably the second largest is the St. Maurice Fire Protective Association of Quebec, which has also the distinction of being the first and only one of its kind in Canada. The constituent lumbermen, whose holdings total over seven million acres on the St. Maurice watershed, assess themselves one-quarter cent per acre for the maintenance of a fire protective patrol on this area. This Association has only been in existence in its present form since the spring of 1912, yet in two short summers it has installed a system of fire protection second to none in Canada. Speaking of the dry summer of 1913, Mr. Ellwood Wilson, a member of this Association, says: "The St. Maurice Fire Protective Association has had a very successful year. Over 275 forest fires were extinguished with practically no damage; seven lookout towers have been constructed and telephone lines have been commenced. The success of co-operative fire protection has been established beyond a doubt."

What has been successfully accomplished by lumbermen in the United States and Quebec can be done elsewhere in Canada, and with a view to furthering this solution of the forest fire problem, the Forestry Branch of the Department of the Interior, Ottawa, is publishing a bulletin on co-operative forest fire protection, which can be obtained free of charge from the Director of Forestry.

The Fire Department of Toronto was investigated recently by the Bureau of Municipal Research, an organization of citizens. The following were the recommendations:

1. Inspect any building, structure, vessel, place or premises.
2. Remedy any condition found in violation of any law or by-laws in respect to fire or the prevention of fires.
3. Require the installation of automatic fire alarm systems, fire extinguishment equipment, and adequate and safe means of exit.
4. Require to be vacated any building or structure which is inadequately protected against fire.
5. Require any vessel anchored near any dock to be removed to a place designated by the commission, provided the vessel is on fire or in danger of catching fire, or is, from the nature of its cargo, a menace to shipping property on the waterfront.
6. Require regular and periodic drills in factories, stores, schools, hospitals and asylums.
7. Declare a building which is deficient in fire extinguishment equipment, or which, by reason of contents or overcrowding, is perilous to life and property, to be a nuisance.
8. Abate such nuisance by compelling the owner to place the building in a condition of safety.

PARLIAMENTARY

By F. W. WEGENAST

THE following are the principal objections made by the Canadian Manufacturers Association to the Workmen's Compensation Bill of Sir William Meredith at the public meeting in the Legislature, Toronto, in January:

1. *The Preposterous Scale of Benefits.*—All the other provinces of Canada, except Ontario and Prince Edward Island, have adopted workmen's compensation systems within the last few years. The highest scale of benefits under these Acts is that of Quebec. The total maximum amount of compensation payable under the Quebec Act is $2,000. Under the Commissioner's proposal a workman would draw 55 per cent. of his former wages for life or during disability, the only limitation being that the annual amount is not to be more than $1,100.

2. *Payment of Compensation in Certain Cases.*—(*a*) Where the injury is due to serious and wilful misconduct of the workman himself he is to receive compensation if the injury results in death or serious disablement;

(*b*) If the injury is due to an accident or act of God entirely unconnected with the employment as, for instance, a catastrophe like the Regina cyclone, the employee is to receive compensation out of the funds provided by the employer.

(*c*) Compensation is to be paid to workmen who are injured by wilful and intentional acts of their fellow-workmen.

(*d*) If the injury does not last more than seven days there is to be no compensation, but if it lasts beyond the seven days there is to be compensation from the beginning.

3. *Form of Compensation in Certain Cases.*—In cases of permanent partial disability, as e.g., the loss of a finger, the proposed compensation is a weekly pension for life based upon the diminution of earning capacity.

4. *The Conflicting Principles Embodied in the Proposed Bill.*—(*a*) State insurance under a Government Commission;

(*b*) Individual liability with adjustment of claims by a Government Commission.

(*c*) Individual liability administered by courts of law.

The Commissioner's proposal involves three different kinds of new law. Farmers, employers of domestic servants, barbers, professional men, etc., are to be stripped of their defences and subjected to an action in the ordinary courts for unlimited damages. Manufacturers, builders, etc., are to be grouped and made subject to assessment in groups for injuries occurring to workmen in the group. Telephone companies, navigation companies, railway companies, municipal corporations, etc., are left ungrouped and each made individually liable to compensate its workmen in accordance with the schedule provided for manufacturers.

5. *The Indefiniteness of the Boundaries* between the classes of employers proposed to be covered by the respective principles, due to inadequate and impracticable methods of definition and involving a certainty of endless doubt and litigation before they could be ascertained.

6. *The Practical Impossibility* of collecting the premiums and administering the compensation in the industries as attempted to be defined. In the repeated words of the Commissioner: "It would require an army of officials." Or in the alternative the province would fail to collect a large part of the insurance premiums and presumably would expect the rest of the employers to make up the deficiency.

7. *The Practical Impossibility of Operating an Insurance System of the Scope Proposed.*—It is impossible for the province to start off with such a system as that proposed, whatever might be done by a process of gradual extension.

8. *The Method of Classification.*—The Act classified employers instead of employments. An employer is treated as if he carried on only one industry. No provision is made for segregating the different employments which the same employer may be conducting.

9. *The Depletion of Some of the Insurance Classes.*—e.g., navigation, telegraph construction, car shops, etc., reducing the "exposure" and rendering it impossible for them to stand alone as insurance bodies.

10. *The Abolition of the Employer's Defences.*—The defences of all employers are to be abolished pending the establishment of the insurance system. It has probably not been anticipated that this would involve the annulment of the employer's liability policies now in force and compel the securing of new insurance for the short period.

The abolition of defences as a means of providing compensation is indefensible in principle and a proved failure in practice. It was repudiated by the employers represented in the course of the inquiry, and is now proposed to be applied to those not represented.

11. *The Preferred Treatment given to Railway Companies, Telephone Companies, Navigation Companies, Municipal Corporations, etc.*—(*a*) They are individually liable to their employees, and are in a position to discourage the bringing of claims. Employees in the grouped industries would receive encouragement rather than opposition from their employers in establishing their claims against the group funds.

(*b*) In addition to this railway companies and other industries in schedule 2 may commute their compensation for 75 per cent. of its value. This is entirely uncalled for. The provision is borrowed from the English Act and has no relation to a state insurance system.

(*c*) It is also proposed to allow railway companies, etc., to contract themselves out of the Act for the first four weeks of disability. And agreements for a longer period are proposed to be allowed on the consent of the Board—S. 17.

(*d*) The withdrawal of the railway companies depletes some of the insurance classes, e.g., car shops, so that there are not enough to stand alone.

(*e*) The enforcement of the capitalization plan of rating in the grouped industries would also give the railway companies, etc., an advantage over manufacturers in that they would pay out only the current pensions while manufacturers would be obliged to put up capital sums.

12. *The Inclusion of the "Clerical" Classes in the Insurance System*—thus setting up a gigantic system of provincial accident insurance for non-hazardous as well as hazardous employments; and discriminating between, e.g., the managers, clerks, stenographers, etc., of a manufacturing business or a printing office and those of a wholesale establishment or insurance or banking office.

13. *The Omission of the Crown from the Application of the Act.*—Employers, e.g., of the Hydro-Electric Commission and Agricultural College, are not covered by any part of the Act. So also all the managers, clerks, etc., of every business establishment are covered but not those at the Parliament Buildings.

14. *The Failure to Eliminate Litigation.*—The indefinitely numerous questions of definition and jurisdiction will have to

(*Continued on page* 922b.)

THE UTTER WASTE OF SMOKE



85% COAL ENERGY WASTED

GONE up the chimney, where it can benefit no one. Think of engaging a man to work from 8 till 6, and allow him to draw a full day's pay for starting at 4.30! That's just about what the coal user does, gets 15c. worth of actual power for every dollar expended.

Hydro-Electric

Power is an exact and known quantity. You pay for only the energy you actually use. Hydro is clean, convenient, controlled by a switch; reduces your "overhead;" is "on the job" just as long as it is wanted and no longer.

We will analyze your power problem and tell you exactly what we can do for you and at what cost. Asking us to do this commits you to nothing. Let us hear from you.

Toronto Hydro-Electric System

226 YONGE ST. PHONE ADELAIDE 2120

SAFETY

Industrial Canada will be glad to receive items of news for this page from manufacturers who believe in "Safety First."

THE promotion of the "Safety First" movement is of especial importance to all manufacturers. This has been amply demonstrated by the various safety organizations in the United States, where the work has taken hold of the public in a manner that has surprised the most optimistic.

The Ontario Safety League was organized a short time ago at the suggestion of the Ontario Railway and Municipal Board and a large number of well-known and public-spirited citizens have identified themselves with the work. Briefly, the avowed aims of the League are:

(a) To educate the public, especially children, in regard to dangers that threaten their lives, owing to traffic conditions;

(b) To assist in the betterment of the conditions of traffic and the protection of the public from accidents on the streets.

Later on, the organization will extend itself into the various ramifications of safety work, and it is confidently anticipated that very material reductions will be made in the present large number of accidents, fatal and otherwise.

This is a matter that concerns each and every one of us. We have all come into contact with someone who has been injured, as the result of carelessness, personal or outside. The adoption of the motto "Safety First" in its full meaning will pay you and your employees many times over, in both time and money.

The following gentlemen are the officers of the League: Honorary President, His Honor, Sir John M. Gibson, K.C.M.G., K.C., LL.D., Lieutenant-Governor of Ontario; President, James L. Hughes, LL.D.; Vice-Presidents, Col. Sir. H. M. Pellatt, Knt., C.V.O., A.D.C., John C. Eaton, President T. Eaton Co., Limited; Executive Committee, the President, the Vice-Presidents, A. B. Ingram, Vice-Chairman Ontario Railway and Municipal Board, J. O. McCarthy, Vice-Chairman Board of Control, Fred. J. Conboy, D.D.S. Board of Education, John T. Loftus, Separate School Board, Ernest Webb, Toronto District Labor Council, P. E. Doolittle, M.D., President Ontario Motor League, O. Hezzelwood, President Dominion Automobile Federation, W. R. McRae, Master Mechanic Toronto Railway Company, F. L. Hubbard, Toronto Railway Company; Secretary-Treasurer, R. B. Morley; Organizer and Engineer, J. F. H. Wyse.

A safety engineer of Philadelphia, speaking of the progress of accident prevention, referred to the improvements that have been made "Since the time when Noah put a toe-board around the poop deck of the ark, and warned Shem not to let his feet hang over when he was fishing."

Can anyone go further back than this in "Safety First" research?

The organization of the National Council for Industrial safety, effected at the time of the Second Safety Congress in New York recently, marks the beginning of what promises to be the most important accident prevention movement yet known in the United States.

The Safety Committee, which is the executive body in charge of the "Safety First" Movement on Grand Trunk, held its first meeting in the Board of Directors' room, General Offices, Montreal, January 12th.

The report of the secretary, which was read at this meeting, showed the interesting fact that since the inauguration of the Safety Movement on the Grand Trunk on August 15th, 1913, injuries to the employees have been reduced to the extent of 11.5 per cent., and that during the same period fatal injuries to employees on duty have been decreased 50 per cent., as compared with the same period of 1912. Traffic was heavier in the latter period than in the former.

The officers and employees of the Grand Trunk are taking a keen personal interest in correcting unsafe conditions and practices, and to this interest is due the favorable record above cited, which is one of the most remarkable that have ever been achieved by the Safety Movement on any railway, and especially so in view of the short time in which the movement has been in force.

The International Conference on Safety of Life at Sea, which has been in session in London for several weeks, has had under consideration questions of the highest importance, and it is hoped that its deliberations may result in more effective measures for assuring the safety of the passengers and crews of ocean-going steamships.

The Bureau of Mines accords honorable mention to the States of Michigan and Minnesota for effective work in reducing the number of deaths in mines. Michigan has reduced its total of deaths in the copper and iron mines from 134 in 1911 to 96 in 1912. Minnesota has reduced its total deaths in the iron mines from 76 to 50 in the same period. The death rate for every 1,000 men employed in Michigan was 4.24 in 1911 and 3.26 in 1912; and in Minnesota 4.59 in 1911, and 3.02 in 1912. The 38 less lives lost in Michigan represent one miner saved for every 1,000 employed, and the 26 less lives lost in Minnesota represent one and one-half miners saved for every 1,000 at work. The decreases in fatalities in the mines of Michigan and Minnesota within a single year are the most remarkable the Bureau of Mines has encountered so far, and they were due largely to an active safety campaign during the last three years. An even more favorable showing in the near future is expected by the Bureau of Mines.—*Safety Engineering.*

To make wooden shingles fire-resistant, an interesting series of experiments are being conducted at the government forest products laboratory at Madison, Wis., as a solution of the inhibition against the use of the ordinary shingle, made by a number of municipalities throughout the nation.

The question of fireproof shingles just now is agitating the lumber trade and the finding of a commercially available process will be of immense importance. By the use of chemicals such as sulphate of ammonia and phosphate of ammonia, and the placing of shingles in solders and subjecting them to pressure, thus forcing into them these fire-resisting substances, the laboratory has succeeded in producing a fireproof shingle at a cost of $15 per thousand. It is now working on the question of reducing the cost of the operation.

Manufacturers must realize that attention to safety will keep down the cost of compensation.

There Are No Big Fires

In the Plant that is Equipped with these Efficient Firemen

A BLAZE IS QUICKLY EXTINGUISHED BY

MANUFACTURERS' AUTOMATIC SPRINKLERS

You would not think of going without fire insurance, would you? Why then go without efficient fire protection?

By installing Manufacturers' Automatic Sprinklers, your insurance rates will drop 80 per cent., and this big saving will soon cover the cost of these firemen.



May we give you full details, and estimates on equipping your old and new plant?

THE GENERAL FIRE EQUIPMENT COMPANY Limited

72 QUEEN ST. EAST TORONTO, CANADA

MR. JOHN D. PALMER, PRESIDENT.

Mr. John D. Palmer, President of the Hartt Boot and Shoe Co., Ltd., was elected President of the Board of Trade, Fredericton, N.B., for 1914, at the largest meeting of the board ever held in that city.

Canadian Consolidated Rubber Company of Edmonton, Alta., are re-building warehouse; cost, $60,000.

The Western Canada Flour Mills, Winnipeg, have made an addition to their warehouse at St. Boniface; cost, $35,000.

CONDENSED ADVERTISING

POSITION WANTED AS WESTERN SALESMAN.

A successful and experienced salesman who has travelled in Western Canada for several years wishes a position with a manufacturer to cover that territory. The applicant has first-class references. Address Western, care of INDUSTRIAL CANADA, Traders Bank Building, Toronto.

FOR SALE.

One second-hand Robb engine, 35 horse-power, and one second-hand Monarch boiler, 35 horse-power. Address Messenett & McDougall, St. George, New Brunswick.

PATENT RIGHT FOR SALE.

Patent right for sale in Canada on an adjustable chair attachment to change an ordinary chair to a medium or high chair.

Frank Duerst, Wiggins, Colo., U.S.



New Drummond Building

The Drummond Building measures 112 by 126 feet, covering an area of over 14,000 square feet. The estimated value of the site is $800,000, while the building will probably cost more than that. The heavy steel skeleton is faced with Indiana limestone, and floors and partitions are of terra cotta. Construction throughout is of highest modern fire-proof type.

A Printing Press Has No Brains

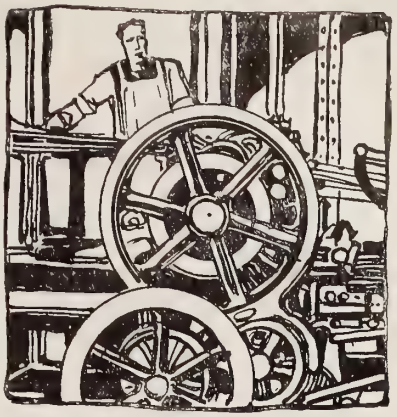
A PRINTING press has no imagination—no reason—no brains. It is a wonderful piece of machinery, but it doesn't think. It cannot improve a poorly laid-out page of type. It won't print clear-cut pictures from poorly-made engravings. It doesn't detect errors in typography.

Some one—before the press starts—must plan these things. Some one who knows must decide the margins and see that the engravings are right. Some one must choose the type, the paper, the ink, design the illustrations, pass the colors, make embossing dies, specify the cover.

In short, it requires a force of seasoned minds to set the press revolving on that job of yours to some purpose.

This does not produce cheap printing: it produces profitable printing.

If this service and supervision costs something, it certainly is worth much more because it produces printing that produces business.



On receipt of request, our representative will be glad to call and explain in further detail the full scope of Rous & Mann Printing and Advertising Service.

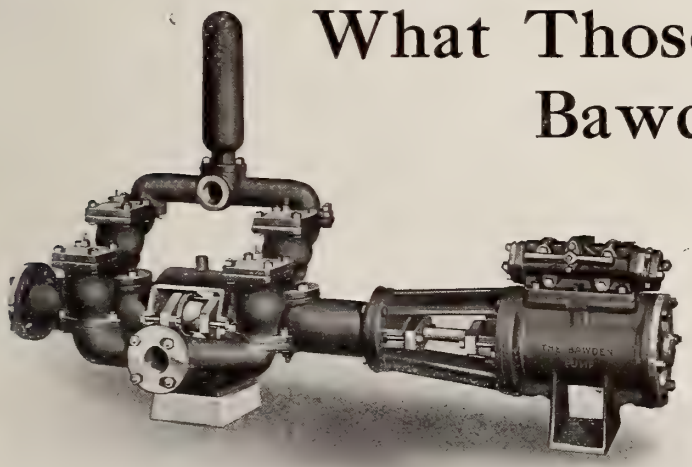
ROUS & MANN, LIMITED

Designers and Printers

TORONTO MONTREAL

ROUS AND MANN LIMITED PRINTERS TORONTO

What Those Who Know Say Of Bawden Pumps



A User:
"I would never know I had a pump, as it needs no attention."

An Engineer Who Has Specified Them on a Number of Large Jobs:
"It is the best pump I ever saw."

An Engineer Who Made Tests:
"I don't know another pump made that will stand those tests like that pump."

A Large Manufacturer:
"It is the best made pump I ever saw and a credit to Canada."

A Contractor Who Uses Them on all His Jobs:
"I put them in, they start right off, and I never have a complaint, so they must be good."

A Prospective Customer:
"I called up the users you gave me, and will take your pump."

Guaranteed Equal to any Pump in the World.

Write for Catalogue and Calendar.

And learn why Bawden Pumps cannot Short Stroke or Bang.

¶ The Bawden Pumps are operated by the Bawden Patent Balanced Steam Moved Piston Valves, which insures a Full Stroke of the piston under all conditions. There are no outside rods to stick or get out of adjustment.

¶ The water valves have no screwed seats, but are driven in on a special taper and are held solid by brass stoppers through the covers, all parts made on jigs and face machined, so no sheet rubber packing is required.

Quebec Agents: H. L. Peiler & Co., 380 St. James St., Montreal

The Bawden Machine Co., Limited

125-137 Sterling Rd., TORONTO, CANADA

VALUE OF CANADIAN FIELD CROPS.

The area, yield and value of the principal field crops of Canada in 1913, as compared with 1912, are contained in the final estimates of the census and statistics office. Last year's season was very favorable for grain growing in the north-west provinces, where, during the ripening, harvesting and threshing periods, conditions, generally speaking, were ideal. In Ontario, Quebec and parts of the Maritime Provinces, on the other hand, the yield of grain was adversely affected by prolonged drought.

For the whole of Canada the principal field crops occupied a total estimated area of 35,375,000 acres, as compared with 35,575,000 acres in 1912, and their value, computed at average local market prices, was $552,771,500, as compared with $557,344,100 in 1912.

Wheat upon 11,015,000 acres produced 231,717,000 bushels, of the value of $156,462,000, the corresponding figures in 1912 being 10,996,700 acres, 224,159,000 bushels and $139,090,000. Of the total wheat area, 970,000 acres were devoted to fall wheat, the production being 22,942,242 bushels, as compared with 20,387,000 bushels in 1912.

Oats yielded a total of 404,669,000 bushels from 10,434,000 acres, and the value reached $128,893,000, the corresponding figures of 1912 being 9,966,000 acres, 391,629,000 bushels and $126,304,000. Both the wheat and oat crop of 1913 are the highest on record in Canada, wheat as regards area, yield and value, and oats as regards area and yield. The value of the oat crop was exceeded in 1911, when the amount was $132,949,000.

Barley upon 1,613,000 acres yielded 48,319,000 bushels of the value of $20,144,000, as against 1,581,000 acres, 49,398,000 bushels and $22,354,000 in 1912.

Flax seed occupied 1,552,800 acres, and the production was 17,539,000 bushels of the value of $17,084,000, as compared with 2,021,900 acres, 26,130,000 bushels and $23,608,000 in 1912.

The quality of the grain crops, as indicated by the average weight per measured bushel, is excellent, and is superior to 1912. Spring wheat averages 60.37 pounds, against 58.90 pounds in 1912; oats 36.50 pounds, against 35.50 pounds, and barley 48.50 pounds, against 47.50 pounds.

In the three north-west provinces of Manitoba, Saskatchewan and Alberta the production in 1913 of wheat is estimated at 209,262,000 bushels, compared with 204,280.000 bushels in 1912, of oats at 242,413,000 bushels, compared with 242,321,000 bushels, and of barley at 31,060,000 bushels, compared with 31,600.000 bushels. The wheat production of 1913 in Manitoba was 53.331.000 bushels from 2.804,000 acres; in Saskatchewan, 121,559.000 bushels from 5.720,000 acres, and in Alberta 34,372,000 bushels from 1.512.000 acres.

TARIFF (continued from page 917).

Total Exports and Imports of the Dominion of Canada for the nine months ending December, 1913

Exports.	1911		1912		1913	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
	$	$	$	$	$	$
The Mine....	29,562,761	177,806	42,547,885	104,766	44,218,506	177,923
The Fisheries	12,534,827	86,936	12,180,322	87,460	16,080,950	59,954
The Forest...	34,005,065	197,699	36,699,244	406,808	35,976,857	591,045
Animals and their Produce ...	41,456,779	933,346	36,740,883	764,488	43,568'859	1,069,752
Agriculture..	84,047,270	7,954,292	119,209,170	8,722,817	177,706,169	8,495,487
Manufactures	25,197,253	4,874,074	31,160,289	6,620,970	41,478,454	8,476,597
Miscellaneous	90,777	766,047	74,363	1,775,275	85,829	2,599,270
Total ..	226,895,132	14,990,200	278,652,157	18,482,604	359,115,624	21,470,028

Imports	1911	1912	1913
Dutiable Goods	$243,601,056	326,417,953	323,434,077
Free Goods	138,850,867	170,274,850	162,317,409
	$382,451,923	$496,692,803	$485,751,485
Duty collected.....	63,469,407	85,111,641	83,954,061

Exports and imports of coin and bullion not included in above

PARLIAMENTARY (continued from page 919).

come before the courts in the regular course, and it would require many years of expensive litigation to determine the most elementary questions, e.g., whether a butcher's employee was entitled to a claim for damages in the courts or to compensation under Part I, and whether the butcher was subject to pay the premiums to the Government system or not.

15. *The Absence of Provision for the Payment of the Cost of Administration by the Government.*

16. *The Inclusion of Industrial Diseases.*—Elaborate provisions are made for industrial diseases which have no existence in this province. No investigation was held as to the necessity for such legislation or as to what diseases should be covered. The whole question of industrial diseases would involve complex questions of principle and practice which it would be impossible for a Board under a state insurance system to deal with at the outset.

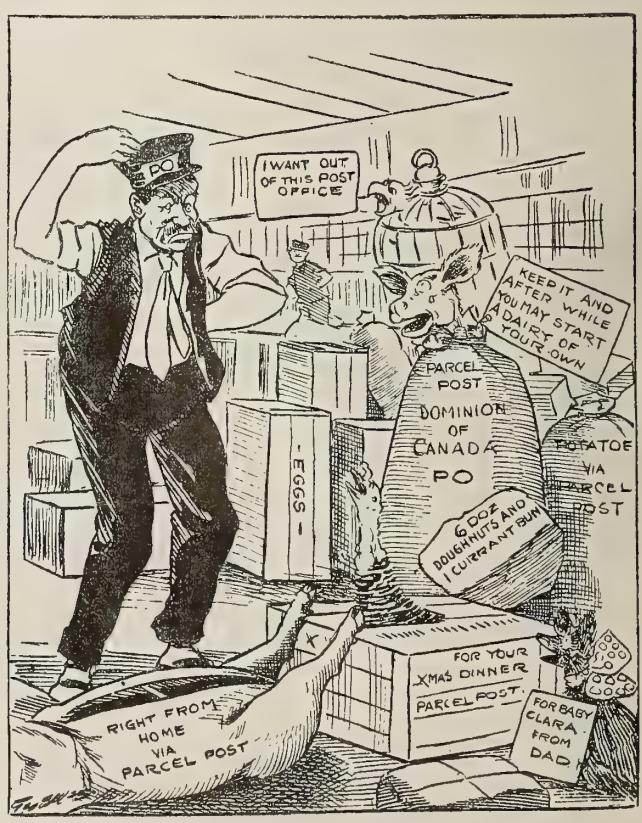
17. *The Imposition of the Capitalization Method of Actuarial Rating Instead of the Current Cost Plan*—the effect of which would be the doubling or trebling of the initial insurance rates.

THE WILLYS-OVERLAND OF CANADA, LIMITED.

The Willys-Overland of Canada, Limited, has been incorporated with a capital of $500,000, and will begin active operations to manufacture automobiles at Hamilton.

For the new company the Schacht property has been purchased, and almost immediately necessary building extensions and changes will be made to accommodate the requirements of the new company.

The Willys-Overland of Canada is an organization distinctly separate from any other concern, although the president will be J. N. Willys, who is also president and general manager of the Willys-Overland Co. of Toledo, Ohio, and the lines to be manufactured will be identical with those of the Toledo concern.



CHRISTMAS MAILS WHEN WE GET PARCEL POST.

SAVE MONEY IN WAGES

TIME RECORDING SYSTEMS are essential for the protection of manufacturers. Wages form the heaviest single item in the expense account of most businesses. You do not know whether you are getting service for your wage expenditure unless you have an automatic system to record the times of arrival and departure of employees. Write us for illustrated catalogue.



Dey Cost Keeper for Getting Accurate Cost

We are the Original Manufacturers of All Time Recorders.

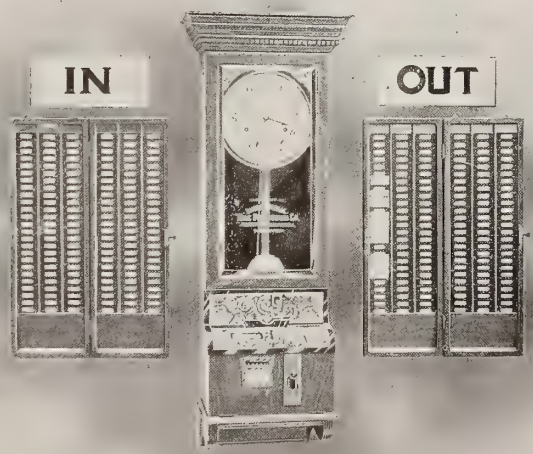
We Lead, Others Follow.



Autograph Clock



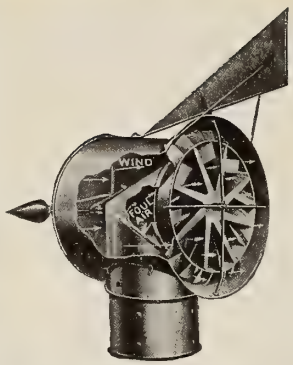
Well-Known Dey Dial Recorder.



International Card Recorder

INTERNATIONAL TIME RECORDING COMPANY OF CANADA, LIMITED

21-23 Alice Street, Toronto, Canada - - - Offices in all Principal Cities in Canada



BICALKY VENTILATORS

Positive Ventilation Without Power Bills

Results do not Depend on Temperature or Weather Conditions.
Fan Suction Produces a Positive Upward Circulation of Air at all Times
The Most Efficient Ventilator made. Handles Smoke and Dust.

CONSULT US ON YOUR VENTILATING PROBLEM

SHEET METAL WORK

GET OUR PRICES

JOHN T. WILSON, LIMITED - TORONTO

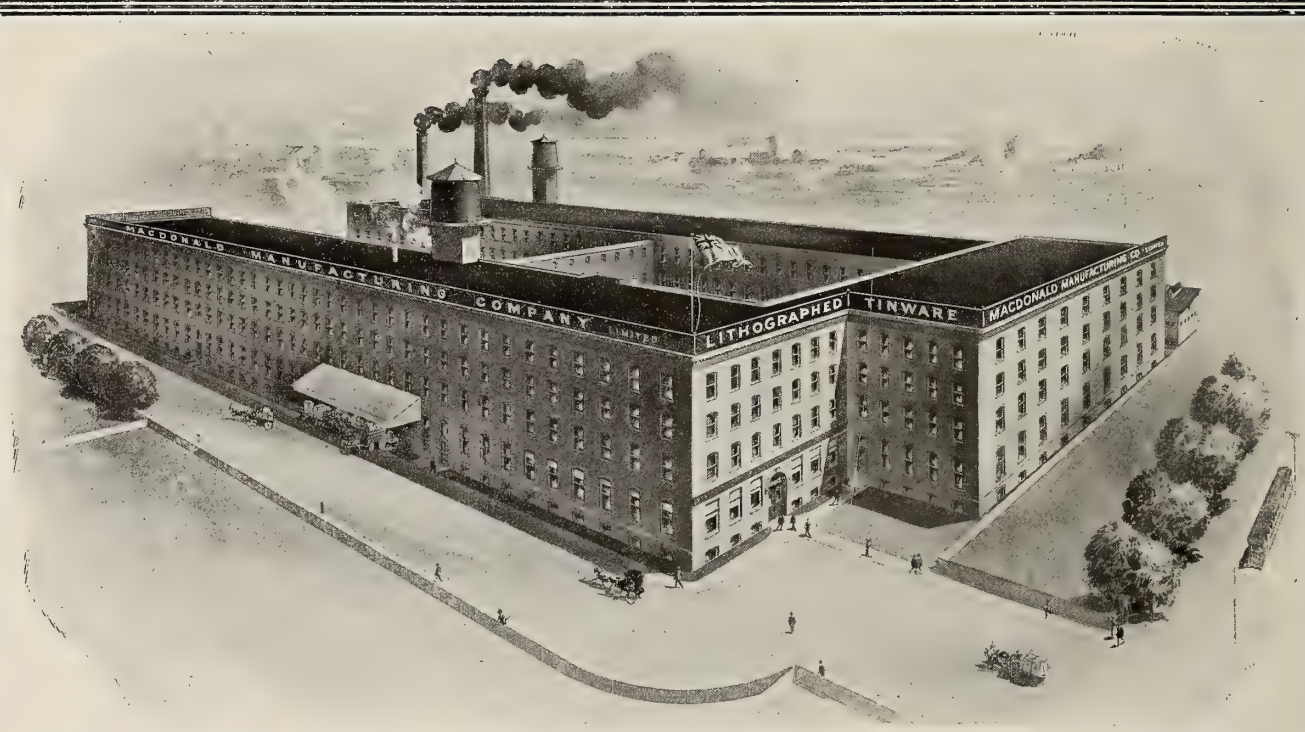
U. S. RAILWAYS AND THE LAW.

The precedent established by the dissolution of the New Haven railroad system is expected to produce a revolution in future railroad control in the United States.

The following lines, among others, will be attacked and will be expected to take prompt action to conform to the provisions of the Sherman anti-trust law: The Pennsylvania system, the New York Central system, and the Southern Railroad company.

The Pennsylvania partly conformed to the law when it transferred the Baltimore and Ohio to the Union Pacific in exchange for the Southern Pacific. But it is declared to own other parallel lines which justify the charge of suppression of competition.

This likewise is the case with the New York Central, which owns and controls 90 per cent. of the stock of the Lake Shore and Michigan Southern and 89 per cent. of the stock of the Michigan Central Railroad Company.



MACDONALD MANUFACTURING CO., LIMITED, TORONTO

We Specialize on Cans or Boxes required for Customer's Exclusive Use
Practically Nothing Else made in our Entire Plant
This Ensures Undivided Attention to your Particular Order

PLAIN OR DECORATED TIN BOXES AND SIGNS

ALWAYS IN STOCK,

USE MORRIS CHAIN-BLOCKS

THEY NEVER BETRAY.

THE CANADIAN BANK OF COMMERCE

Report of the Proceedings of the Annual Meeting of Shareholders

TUESDAY, 13th JANUARY, 1914

The forty-seventh Annual Meeting of the Shareholders of The Canadian Bank of Commerce was held in the banking house at Toronto, on Tuesday, 13th January, 1914, at 12 o'clock.

The President, Sir Edmund Walker, having taken the chair, Mr. A. St. L. Trigge was appointed to act as Secretary, and Messrs. Aemilius Jarvis and Edward Cronyn were appointed scrutineers.

The President called upon the Secretary to read the Annual Report of the Directors, as follows:

Report

The Directors beg to present to the Shareholders the forty-seventh Annual Report, covering the year ending 29th November, 1913, together with the usual statement of Assets and Liabilities:

The balance at credit of Profit and Loss Account, brought forward from last year, was	$ 771,578 88
The net profits for the year ending 29th November, after providing for all bad and doubtful debts, amounted to	2,992,951 10
	$3,764,529 98

This has been appropriated as follows:

Dividends Nos. 104, 105, 106 and 107, at ten per cent. per annum	$1,500,000 00
Bonus of one per cent. payable 1st June	150,000 00
Bonus of one per cent. payable 1st December	150,000 00
Written off Bank Premises	500,000 00
Transferred to Pension Fund (annual contribution)	80,000 00
Transferred to Rest Account	1,000,000 00
Balance carried forward	384,529 98
	$3,764,529 98

In accordance with our usual practice the assets of the Bank have again been carefully revalued and ample provision made for all bad and doubtful debts.

The following branches were opened during the year: In British Columbia: Comox, Courtenay, Pandora and Cook (Victoria), and Parksville; in Alberta: Highland, Monitor, Peace River Crossing and Retlaw; in Saskatchewan: Kincaid, Readlyn, Shaunavon and Wiseton; in Manitoba: Kelvin Street (Winnipeg); in Ontario: Oshawa and Port McNicoll; in Quebec: Upper Town (Quebec), and in New Brunswick: Campbellton, Moncton and West St. John.

The sub-agencies mentioned below have been made independent branches:

Asbestos, Chambly, Clarenceville, Dunham, Iberville, Lacolle, Roxton Falls, Stanbridge East and Uppertown (Sherbrooke), all in the Province of Quebec.

The branches at Stewart, B.C., Black Lake, Que., and St. Elizabeth, Que., have been closed, and the business of the branch at 367 Main Street South, Winnipeg, has been transferred to the main office in Winnipeg. The business of the sub-agencies at Naramata, B.C., Beloeil Station, Henryville, Lawrenceville, St. Philippe de La Prairie, St. Sebastien, Sweetsburg and Upton, all in the Province of Quebec, have been transferred to their respective parent branches. Since the close of the year branches have been opened at St. Denis and Duluth (Montreal), Bath, N.B., and Bristol, N.B.

Due notice has been received of the intention to nominate Mr. T. Harry Webb, of Messrs. Webb, Read, Hegan, Callingham & Co., Montreal and Winnipeg, and Mr. James Marwick, C.A., of Messrs. Marwick, Mitchell, Peat & Co., Montreal, as auditors of this Bank under the provisions of sub-section 10 of section 56 of the Bank Act.

The branches and agencies of the Bank in Canada, the United States, Great Britain, Newfoundland and Mexico, and the departments of the Head Office have undergone the usual thorough inspection during the year.

The Directors wish again to express their appreciation of the efficiency and zeal shown by the officers of the Bank in the performance of their duties.

ALEXANDER LAIRD, General Manager.
B. E. WALKER, President.
Z. A. LASH, Vice-President.

Toronto, 13th January, 1914.

General Statement

29th November, 1913.

LIABILITIES.

Notes of the Bank in circulation		$ 15,642,923 18
Deposits not bearing interest	$ 52,798,205 84	
Deposits bearing interest, including interest accrued to date	$140,015,509 40	
		192,813,715 24
Balances due to other Banks in Canada		633,237 12
Balances due to Banks and Banking Correspondents elsewhere than in Canada		10,071,316 73
Bills payable		9,515,787 65
Acceptances under Letters of Credit		1,941,544 19
		$230,618,524 11
Dividends unpaid		2,666 48
Dividend No. 107 and bonus, payable 1st December		525,000 00
Capital paid up	$15,000,000 00	
Rest	13,500,000 00	
Balance of Profit and Loss Account carried forward	384,529 98	
		28,884,529 98
		$260,030, 720 57

ASSETS.

Current Coin and Bullion	$ 9,579,473 66	
Dominion Notes	20,836,182 50	
		$ 30,415,656 16
Balances due by Banks and Banking Correspondents elsewhere than in Canada	$6,884,652 83	
Balances due by other Banks in Canada	22,122 47	
Notes of other Banks	3,106,230 00	
Cheques on other Banks	6,418,425 14	
		16,431,430 44
Call and Short Loans in Canada on Bonds, Debentures and Stocks		9,610,550 08
Call and Short Loans elsewhere than in Canada		16,154,360 65
Dominion and Provincial Government Securities		3,434,605 06
British, Foreign and Colonial Public Securities and Canadian Municipal Securities		2,431,989 71
Railway and other Bonds, Debentures and Stocks		18,091,224 04
Deposit with the Minister for the purposes of the Circulation Fund		738,500 00
		$ 97,308,316 14
Other Current Loans and Discounts in Canada (less rebate of interest)		$136,474,874 82
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest)		18,102,015 15
Overdue Debts (estimated loss provided for)		487,554 72
Real Estate (including the unsold balance of former premises of the Eastern Townships Bank)		979,915 61
Mortgages on Real Estate sold by the Bank		433,607 32
Bank Premises		4,281,481 60
Other Assets		21,411 02
Liabilities of customers under Letters of Credit, as per contra		1,941,544 19
		$260,030,720 57

B. E. WALKER, President.
Z. A. LASH, Vice-President.
ALEXANDER LAIRD, General Manager.

Before moving the adoption of the Report, the President called upon the General Manager to address the shareholders.

General Manager's Address

We have closed our accounts for the past year and have great pleasure and satisfaction in presenting you with a statement of the results of the Bank's business, which you will realize is the best record in its history, and should be a source of gratification to the shareholders and those actively engaged in its administration.

There was enough difficulty and perplexity in the general financial situation at the close of 1912 to make us apprehensive at the beginning of the past year. Canadians had some reason to hope for an early return to normal conditions, but were doomed to disappointment, and the continuance of the unfavorable influences then evident, and the aggravation of some of their worst features has made the history of 1913 memorable in the annals of international trade. While the year has been full of anxiety and much actual strain, there is cause for congratulation that, notwithstanding the long-deferred arrival of peace in continental Europe, the uncertainty as to how the adjustment of immense war expenditures will be made, and the distressing delay in bringing order out of chaos in unfortunate Mexico, the general position of financial credit has, on the whole, been fairly well maintained. In our own country we were seriously disturbed lest we should have a failure of the crops, as this would certainly have added to our difficulties; but we were fortunate in securing an abundant harvest of excellent quality. This was marketed with extraordinary celerity and realized good values, which enabled us to make a substantial measure of liquidation of our debts and largely increase our cash capital. Canada is so closely allied with and influenced by the movements of our neighbors to the south, that there was great satisfaction when the radical and important measures initiated under the recent change of administration were brought to a successful conclusion without any serious disturbance in financial affairs. Taken as a whole, and keeping in mind all the adverse conditions, the past year has been marked by astonishing evidence of strength to meet great emergencies.

You will readily see from the statements included in the Report of the Directors that the Bank has had another satisfactory year in the matter of profits. After a very careful re-valuation of our assets, making liberal allowances for depreciation in securities, and providing for

all bad and doubtful debts, you will be pleased to know that the Directors remembered the staff, to whose faithful and zealous efforts our success is largely due. Before closing the books a substantial sum was set aside out of the year's earnings and distributed as a bonus, leaving the declared net profits $2,992,951.10, being 10.88 per cent. on the Capital and Rest combined. We were enabled to pay dividends amounting to $1,800,000, including the usual dividend at the rate of 10 per cent. per annum, and extra bonus dividends of 2 per cent. for the year; and we have reason to hope that we shall maintain this rate until the Rest equals the Capital, and thereafter make the permanent basis 12 per cent., with whatever advantages may come with extra good fortune.

In our last report the urgent necessity for providing an extension of the Head Office and Toronto Branch premises was referred to; and arrangements have since had to be made for the temporary accommodation of some departments of the Bank outside the present building. We are now pleased to say that we have purchased the two properties adjoining, and will proceed to consider plans, although we do not expect to make much progress towards altering or erecting a building for two or three years. We have acquired property in Windsor, Ont., where a suitable office building will be erected during the coming year, and are also engaged in planning the erection of an adequate building in the City of Quebec. In both these places it was absolutely necessary to provide for our growing business. Bank Premises account now stands at $4,281,481.60, and in this connection we would direct your attention to the item of $979,915.61 in the statement under Real Estate. This includes Bank premises acquired by the amalgamation with the Eastern Townships Bank, which will be disposed of in due course at considerably more than the book value. With this sale and the sums from time to time written off Bank Premises, we should be able to keep this account within reasonable bounds and still show our properties at approximately 50 per cent. of their value.

The enrolled members of the staff now number 3,540, an addition of 544 during the year. In accordance with our plan of contributing to the Pension Fund, which includes provision for the widows, orphans and other dependents of deceased employees, we have appropriated $80,000. It will interest you to know that the Pension Fund now stands at the magnificent sum of over $2,000,000. This, of course, includes the contributions of the members of the staff themselves. This large amount has been placed in the hands of a Board of Trustees charged with its administration for the benefit of those who have given long and faithful service to the Bank. We are pleased to record our appreciation of the able manner in which this trust has been exercised. A large portion of the amount has been invested in western farm mortgages, and the whole fund is earning at the rate of about 6¼ per cent. per annum. The importance of making every reasonable effort to create a loyal and efficient staff cannot be too strongly emphasized, and your generous aid in the direction of strengthening the ties which bind its members, perpetuates what is best in our service and is creditable to the institution. The fund has been actuarially examined from time to time, and we believe that it is on a sure and sound basis. We hope in the near future, with the accretions from well-invested funds, to increase the maximum pension.

You will notice that after paying dividends, making appropriations for Bank Premises and Pension Fund, we transferred to the Rest Account $1,000,000, and carried forward a balance of $384,529.98 to Profit and Loss Account. We reported $16,422,864 note circulation in November, 1912, and reached a maximum of $16,548,225 in November, 1913. The lowest point, $12,822,000, occurred in May last. The early movement of the crops relieved the pressure, but we took advantage of the emergency provisions of the Bank Act, and at the date of our statement we had $642,923 circulation outstanding in excess of our paid-up capital. Our deposits show a decrease of $4,803,746, but this is accounted for by the adjustment of several large amounts which were held in special accounts, and the withdrawal of Provincial Government funds. The ordinary deposits show an increase. Current Loans and Discounts were $154,576,889 and Call and Short Loans $25,764,910, compared with $163,753,559 and $17,783,049 in our last report. The total Current Loans were $180,341,800, a decrease of $1,194,808 for the year. We show an increase of $9,595,701 in Government and other Securities, and $2,960,690 in Cash.

We think it advisable to give you an assurance that in the midst of the troubled and dangerous state of affairs in Mexico our interests are being safeguarded and every precaution exercised in handling a difficult problem. Our manager enjoys our full confidence, and he has shown unusual ability and judgment under these trying circumstances.

We deemed it prudent to restrict the opening of new branches to the carrying out in some measure of a programme we had planned early in the year; and we consequently confined ourselves to districts where we had no representation, except in some cases where we opened for the protection of other branches. The geographical distribution of branches and agencies as at 30th November, 1913, was as follows:

Alberta	53
British Columbia	44
Manitoba	23
New Brunswick	5
Nova Scotia	13
Ontario	82
Prince Edward Island	5
Quebec	82
Saskatchewan	57
Yukon	2
Total in Canada	366
Newfoundland	1
London, England	1
United States	4
Mexico	1
Total number of Branches	373

The number of the Bank's shareholders is now 6,026, as against 5,656 a year ago, an increase of 370. The following table indicates how widely our shareholders are scattered, not only in Canada, but abroad:

	No. of Shareholders.	Amount Held.
Ontario	1,468	$4,077,350
Quebec	1,162	3,011,900
Maritime Provinces	758	1,571,650
Western Provinces	126	255,700
Great Britain	1,723	3,315,650
United States	684	2,599,550
Other countries	105	168,200
	6,026	$15,000,000

There has been a widespread agitation in the Central Western district as to the supposed need for greater recognition of the claims of farmers to accommodation from the banks, but investigation does not support this contention, so far as this Bank is concerned. A carefully prepared statement of the business of this Bank in the three western provinces shows the percentage of total deposits to total loans in this district to be 55.55%, which means that for every one dollar on deposit in these provinces we lend two. A compilation of the figures of the business of this Bank in Saskatchewan, made at the request of the Royal Commission on Agricultural Credit appointed by the Saskatchewan Government, gave the percentage of farmers' loans to farmers' deposits in this province as 278.29%, while the percentage of farmers' loans to total deposits was 88.25%. This means that for every dollar which the farmers of Saskatchewan have deposited with us, we have lent them nearly three. These facts should convince those interested in this important subject that our farming customers have been generously treated by us.

The decennial revision of the Bank Act was an important feature of the last session of Parliament. A most searching examination and discussion of every conceivable phase of banking, as it affects this country, resulted in a measure evidently framed with the object of meeting every reasonable requirement, and the Act is generally regarded as a piece of unusually good legislation. The most prominent of the new features are the provisions for the creation of a Central Gold Reserve and the appointment of auditors for the independent examination of banks.

In view of what has been accomplished, in spite of so many adverse influences, and taking into account the natural disposition to look at the bright side of things after having passed through a trying period, it is not easy to forecast what the coming year will bring. We are inclined to the thought that with the correction and adjustment of important matters now pending—such as the settlement of European political and financial difficulties and the attempts to bring about a return of peace and prosperity to unhappy Mexico (an important factor in the situation)—we shall see a revival of better conditions and our problems may be easily solved. We fear there will be a slow recovery, and great circumspection will be required before we again sail in smooth waters. We are likely to have an accumulation of idle money in the financial centres, but this will probably not have any appreciable effect on rates for general business for some time to come, because of the depression in all first-class securities and the difficulty of disposing of the large amount awaiting a favorable market. On the other hand, trade has been prosperous and is fundamentally sound, and while considerable restriction must be expected, we are hopeful that the coming year will be one of reasonable prosperity.

The President then said:—

President's Address

At our last annual meeting for the first time we presented the information at our disposal regarding industrial conditions in Canada, and in the foreign countries in which we do business, in the form of an appendix to the ordinary report to our shareholders. The advantage of presenting the views of our chief officers regarding the various districts directly to the shareholders, instead of compressing them into the addresses of the President or the General Manager, seemed clear, and we think the experiment has justified itself and may be adopted hereafter.

A year ago the tide of expansion seemed still to be in flood, although in some quarters a check was either in plain sight or had here and there made itself felt. Money for certain purposes, notably in connection with real estate, was not so easy to obtain as in former years, yet little heed was apparently paid to the oft-repeated warnings of bankers and others who tried to forecast the future, although at the end of the year we must conclude that, after all, such warnings did have some beneficial effect. Clearly we have come through a time of difficulty in a most creditable manner, and we can look forward to the future cheerfully if the spirit of prudence which now characterizes our people remains unchanged at least until another good crop has been marketed. Much of that part of our expansion which went too far reminds one of the diseases through which the young have to pass. We are doubtless glad if they escape them entirely, but we have no reason to expect that they will be so fortunate. Some undue speculation in real estate, and some over-building in connection with public improvements, are inevitable amidst such astonishing growth and prosperity, and it would be foolish to expect anything else. We are now realizing more accurately the value of real estate, and through the process we are gaining an experience which is absolutely necessary to the foundations of a sound prosperity. The western country as a whole will not again have to suffer from this particular ailment of young communities. We have repeatedly deplored the fettering of the country by the high rent-charge which inflated real estate values impose, and the unfortunate effect of such a rent-charge on the cost of living, and if there is now to be a pause in the upward movement of values, there will in any event be a corresponding gain to all landless people.

Immigration has not yet been much checked by the curtailment of industry; indeed, except from the United States, there has been a large increase during the year. The British immigrants exceed in number the combined total of those from Europe and Asia, and very much exceed those from the United States. The largest increase as compared with the figures of previous years, however, is in the division which includes all countries except Great Britain and the United States. Here the increase, December figures being estimated, is 32 per cent. From Great Britain the increase is 8 per cent., while from the United States there has been a decrease of 17 per cent. There is thus a total increase of 6 per cent., as against 13 per cent. in the previous year. The total number of immigrants, December figures again being estimated, was 417,709, as compared with 395,804, the revised figures for 1912. The total for 1913 is made up as follows: British, 156,873; United States, 115,805; all other countries, 145,031. These figures are again eloquent in explaining the conditions of our foreign trade, the total of which for the year ending March, 1913, passed the billion mark for the first time, being $1,085,175,000. The imports were valued at $691,943,000 and the exports at $393,232,000, showing the largest excess of imports we have ever had, namely, $298,711,000. In the six months of the current fiscal year ending September, the complete figures for which have been published, there is some improvement in the proportion of exports to imports, and since September a greater improvement has taken place. As to our exports, we are glad to report an increase during this period in every group, while there has been a decrease in many of the classes of imports.

We again draw attention to the large proportion of our imports which consists of iron and steel in various forms, not only as raw materials, but as manufactured goods. The total value is about $140,000,000. May we once more point out that in the main these are articles used in building, or in equiping the country for its future, and that such purchasers differ in effect from the import of foodstuffs and other rapidly perishing objects? At the same time we regret that the greater

part of these iron and steel goods is not made in Canada now, as certainly will be the case in time. To the extent to which, by making these goods in Canada, we could have lessened the debt represented by the securities we have sold to pay for the difference between imports and exports, we have burdened ourselves for a long time to come. Of course, while workmen are busily engaged in other things, as they have been in Canada, it may be said that they are not available for more work in iron and steel, but as soon as railroad and other building lessens in volume, not in the aggregate but in proportion to other industries, we may hope that we shall be able to make in Canada the larger part of the iron and steel goods now imported. The increased output of our coal and iron mines, of our blast furnaces and of our manufactories, which would result, would be of inestimable value to the country as a whole.

We turn to the Clearing House returns with unusual interest at such a time as the present. There are now twenty-two Clearing Houses in Canada, but leaving out two with records for part of the year only, and comparing the figures of the twenty in operation a year ago, we find that there have been ten increases and ten decreases during the year, as compared with increases in every Clearing House the previous year. The increase in the total is 1.27 per cent., as against 23.74 per cent. a year ago. Increases appear in the figures of seven eastern and three western cities, and decreases in those of eight western and two eastern cities. After the phenomenal increases in 1912 we may be glad that we have held our own in 1913. Montreal, Toronto, and Winnipeg, three cities which account for 72 per cent. of the total, all show increases.

The building permits of the four chief cities were as follows:

	1911	1912	1913
Montreal	$14,580,000	$19,642,000	$27,032,000
Toronto	24,374,000	27,401,000	27,038,000
Winnipeg	17,550,000	20,475,000	18,621,000
Vancouver	17,652,000	19,388,000	10,423,000

We have made the comparison for three years in view of the contraction which has begun in some cities. Toronto has just kept even and the decline in Winnipeg is trifling. The marked contraction is in Vancouver, and this, no doubt, represents conditions in many other western cities. In Montreal, however, there is a great increase in value, although the number of permits is practically the same. The figures for Montreal always exclude large suburbs, the building in which last year is said to approximate $10,000,000 in value.

The comments of our Canadian, United States and English officers upon the trade and financial situation are so clearly set forth that I hesitate to repeat in any form their conclusions. It may be well, however, at such a difficult time to sum up the case as concisely as possible. The world has two problems before it: (1) How to render available a supply of money sufficient for the carrying out of such physical betterments as must be financed by the sale of securities? (2) How to enlarge the credit facilities of the world for those shorter term transactions which consist of the manufacturing and distributing of perishable goods?

The first problem can only be comfortably solved if there is sufficient money saved—that is, profits withdrawn from active use in business, or income not expended by the owners, etc.—to provide for the necessary borrowings of those who are expending money on permanent improvements. For some years the world has been more extravagant than in any period known to history since Roman times, and this extravagance has been accompanied by a rise in prices which has made it very hard for those who are not extravagant and who are the most regular in saving money in ordinary times, to put by the usual margin against life's contingencies. When securities cannot readily be sold because of a shortage in these savings, the money necessary for the short term transactions above referred to is used to some extent, but the strain produced by this cannot continue indefinitely, and such permanent improvements must lessen in volume until savings catch up and the equilibrium has been restored. The situation during the past year, however, has been aggravated by many other factors. In many countries, notably in Canada, where large sums are being expended on permanent improvements, there is a relatively small number of those who have savings to lend, and the wants of all the borrowers in all such countries have exerted upon the lending countries of the world a combined pressure greater than ever before known. On the other hand, to the extravagance of individuals represented by motor cars, palatial houses, social display, etc., beyond the capacity of their incomes, have been added colossal expenditures in war and on armaments, and for many purposes which are useless from an industrial point of view. Armaments are necessary as part of the police system of the world, but the money sunk in their creation is none the less a sad burden to the industrial world. We have thus come to a time when, coinciding as they do with the hoarding of money by timid owners consequent upon the Balkan and Mexican troubles, the unusual requirements coming from an almost world-wide prosperity cannot be fully met. All business activities, therefore, throughout the world, must be lessened in volume until things right themselves, which they will do quite speedily if people generally are willing to profit by the lessons to be drawn from recent experience.

The motion for the adoption of the report was then put to the meeting and carried. Amendments to the by-laws regulating the number of directors of the Bank were passed, and Mr. T. Harry Webb, C.A., of Messrs. Webb, Reid, Hegan & Callingham, Montreal and Winnipeg, and Mr. James Marwick, C.A., of Messrs. Marwick, Mitchell, Peat & Co., Montreal, were appointed auditors of the Bank, their remuneration not to exceed the sum of $15,000 for the year. The usual resolutions expressing the thanks of the shareholders to the Board of Directors and also to the staff of the Bank were unanimously carried. Upon motion the meeting proceeded to elect directors for the coming year and then adjourned.

The scrutineers subsequently announced the following gentlemen to be elected as Directors for the coming year:—Sir Edmund Walker, C.V.O., LL.D., D.C.L., Hon. George A. Cox, John Hoskin, K.C., LL.D., J. W. Flavelle, LL.D., A. Kingman, Hon. Sir Lyman Melvin Jones, Hon. W. C. Edwards, Z. A. Lash, K.C., LL.D., E. R. Wood, Sir John M. Gibson, K.C.M.G., K.C., LL.D., Robert Stuart, George F. Galt, Alexander Laird, William Farwell, D.C.L., Gardner Stevens, A. C. Flumerfelt, George G. Foster, K.C., Charles Colby, M.A., Ph.D., George W. Allan, H. J. Fuller, F. P. Jones.

At a meeting of the newly elected Board of Directors held subsequently, Sir Edmund Walker, C.V.O., LL.D., D.C.L., was elected President, and Mr. Z. A. Lash, K.C., LL.D., Vice-President.

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H. M. SUTHERLAND,
Secretary,
Board of Trade
Canora, Sask.

or

F. O. LARSEN,
Industrial Commissioner
910 Somerset Building,
Winnipeg, Man.

DOMINION BANK REPORT.

Reports presented at the forty-third annual meeting of the Dominion Bank show that despite the general financial and commercial depression throughout the world during the past year, the bank did excellent business, and the report is most gratifying in every department. The result of the business done during the year was that the net profits of the year were $950,402, after deducting all charges and making full provision for bad and doubtful debts. The premium received on new capital stock was $811,344, making a total, with the balance carried forward from the previous year, of $2,449,856. Of this amount $649,646 was paid in dividends at the rate of 12 per cent., and a bonus of 2 per cent. amounted to $116,176. The total distribution to shareholders thus was 14 per cent. for the year, or $765,823. To the officers' pension fund $25,000 was contributed, $811,000 was transferred to the reserve fund, and $200,000 was transferred to investment accounts. The balance of profit and loss carried forward was $647,688.

On the south side of the Gulf of St. Lawrence, about sixty miles back from the end of land, the St. Lawrence Pulp & Lumber Corporation is erecting a big plant which when finished will represent an investment of close to a million dollars. There is an irregular group of buildings, mostly one-storey and measuring something like 900 by 200 feet in plan, forming a complete pulp mill for making high grade bleached sulphite pulp, together with a digester building covering digesters reaching 160 feet above the ground. All of this is now being built by the Aberthaw Construction Company, of Boston, and is to be finished by next September. The buildings have concrete exterior, the interior structure being largely of structural steel, with yellow pine roofs.

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THE DOMINION BANK

PROCEEDINGS OF THE FORTY-THIRD ANNUAL GENERAL MEETING OF THE SHAREHOLDERS

THE FORTY-THIRD ANNUAL GENERAL MEETING OF THE SHAREHOLDERS OF THE DOMINION BANK was held at the Banking House of the Institution, Toronto, on Wednesday, 28th January, 1914.

Among those present were noticed: G. N. Reynolds, H. G. Horton, Hon. J. J. Foy, M.L.A., James Watt, A. Foulds, W. C. Harvey, A. M. Nanton, Winnipeg, E. Burns, R. Wilkinson, James Matthews, Chas. B. Powell, C. Walker, Sir E. B. Osler, M.P., H. W. Hutchinson, Winnipeg, D'Arcy Martin, K.C., Hamilton, F. E. Dingle, A. R. MacDonald, Epsom, H. R. Playtner, F. Boehmer, Chas. E. Lee, J. J. Cook, E. Roch, J. Harwood, J. Gordon Jones, F. LeM. Grasett, M.B., F. H. Gooch, F. S. Wilson, J. D. Warde, C. P. Wooler, A. E. Gibson, R. B. Morley, W. McAdie, Oshawa, Dr. Chas. O'Reilly, Thos. F. Nivin, J. E. Finkle, P. Schoeler, James Scott, W. J. Waugh, Hamilton, A. McPherson, Longford, Judge McIntyre, Whitby, H. Morris, H. W. A. Foster, W. G. Cassels, F. C. Snider, W. S. Kerman, S. C. Halligan, Wm. Ince, H. J. Bethune, W. Mulock, Jr., Rev. T. W. Paterson, Capt. D. F. Jessopp, Percy Leadlay, S. Jeffrey, Port Perry, G. E. Gross, J. K. Niven, E. T. Fisher, Ashburn, A. B. Fisher, Ashburn, M. S. Bogert, Montreal, F. L. Patton, Winnipeg, R. J. Christie, F. C. Taylor, Lindsay, F. L. Fowke, Oshawa, J. C. Eaton, L. H. Baldwin, W. R. Brock, R. M. Gray, R. Mulholland, A. R. Boswell, K.C., J. T. Small, K.C., S. W. Smith, Whitby, William Ross, E. W. Langley, J. G. Ramsey, E. C. Burton, G. McDonald, J. Carruthers, E. W. Hamber, Vancouver, F. J. Harris, Hamilton, W. D. Matthews, H. B. Hodgins, Dr. A. J. Harrington, C. S. Wilcox, Hamilton, Richard Brown, W. C. Crowther, W. Cecil Lee, Stephen Noxon, F. F. Miller, Napanee, W. E. Carswell, H. Crewe, James Wood, W. T. Kernahan, J. H. Paterson, F. D. Brown, H. Gordon Mackenzie, Alfred Haywood, N. F. Davidson, A. A. Atkinson.

It was moved by Mr. E. W. Hamber, seconded by Mr. R. J. Christie, that Sir Edmund B. Osler, M.P., do take the chair, and that Mr. C. A. Bogert do act as Secretary.

Messrs. A. R. Boswell, K.C., and W. Gibson Cassels were appointed scrutineers.

The Secretary read the Report of the Directors to the Shareholders, and submitted the Annual Statement of the affairs of the Bank, which is as follows:—

TO THE SHAREHOLDERS:—

The Directors beg to present the following statement of the result of the business of the Bank for the year ended 31st December, 1913:—

Balance of Profit and Loss Account, 31st December, 1912.....		$688,109 01
Net profits for the year, after deducting all charges and making full provision for bad and doubtful debts		950,402 78
Premium received on new Capital Stock		811,344 80
Making a total of		$2,449,856 59
Which has been disposed of as follows:—		
Dividends (quarterly) at twelve per cent. per annum	$649,646 77	
Bonus, two per cent.	116,176 70	
Total distribution to shareholders of fourteen per cent. for the year	$765,823 47	
Contribution to Officers' Pension Fund	25,000 00	
Transferred to Reserve Fund—Premium on New Stock	811,344 80	
Transferred to Investment Accounts	200,000 00	
		$1,802,168 27
Balance of Profit and Loss carried forward		$647,688 32

RESERVE FUND.

Balance at credit of account, 31st December, 1912.....	$6,000,000 00
Transferred from Profit and Loss Account	811,344 80
	$6,811,344 80

E. B. OSLER, President.
C. A. BOGERT, Gen. Manager.

The year 1913 was one of general financial and commercial depression throughout the world, which conditions became more accentuated during the closing months of that period. Your Directors, therefore, deemed it advisable to enforce a policy of conservatism without interfering with the requirements of legitimate borrowers.

The funds of the Bank were fully and profitably employed throughout the twelve months under review, resulting in a further increase in the net earnings, the disposition of which is dealt with in detail in the accompanying Report. A bonus of 2 per cent. was again distributed, in addition to the regular dividend of 12 per cent.

Following the announcement made in the last Annual Report, an issue of $1,000,000 of new Capital Stock was made to Shareholders of record of the 15th February, 1913. The whole of this issue was taken up, and although the final payments thereon are not due until June, 1914—$811,344 of the amount had been paid up on the 31st of December last. The total Paid-up Capital of the Bank was, on that date, $5,811,344.

To meet the requirements of Section 56, Subsection 6, of the new Bank Act, you are now asked to elect auditors to serve until the next Annual General Meeting, and two written nominations have already been received in this connection.

You are also requested to sanction the passing of new By-laws, necessitated by changes in the Bank Act and the advisability of having them more fully meet present circumstances.

Branches were opened in 1913 as follows:—

New Westminster, B.C.
Fairview, Vancouver, B.C.
Fernwood, Victoria, B.C.
Medicine Hat, Alta.
Arlington Street, Winnipeg, Man.
Walkerville, Ontario.
Danforth Avenue, Toronto, and
Eglinton Avenue, Toronto.

The offices at North Vancouver, B.C., and Guernsey, Sask., were closed, as existing conditions did not warrant their continuance.

Very satisfactory progress is being made in the erection of the new Head Office Building at the corner of King and Yonge Streets, Toronto, and it is confidently expected that the premises will be ready for occupation before the end of this year.

The customary thorough Inspections of the Head Office and Branches have been made, including the verification by your Directors of the Balance Sheet now presented.

All the Assets of the Bank have been carefully scrutinized by the Directors and Officials, and its Investment Securities are carried on the Books at conservative values.

E. B. OSLER, President.

Toronto, January 28th, 1914.

The Report was adopted.

In conformity with Section 56, Subsection 6, of the new Bank Act, Messrs. Geoffrey T. Clarkson and Robert J. Dilworth were appointed Auditors for the current year.

New By-laws were submitted and passed by the Shareholders.

The thanks of the Shareholders were tendered to the President, Vice-President and Directors for their services during the year, and to the General Manager and other Officers of the Bank for the efficient performance of their respective duties.

The following gentlemen were duly elected Directors for the ensuing year: Messrs. A. W. Austin, W. R. Brock, James Carruthers, R. J. Christie, J. C. Eaton, J. J. Foy, K.C., M.L.A., W. D. Matthews, A. M. Nanton, E. W. Hamber, H. W. Hutchinson, and Sir Edmund B. Osler M.P.

At a subsequent meeting of the Directors Sir Edmund B. Osler, M.P., was elected President, and Mr. W. D. Matthews, Vice-President, for the ensuing term.

GENERAL STATEMENT

LIABILITIES.

Capital Stock paid in		$5,811,344 80
Reserve Fund	$6,811,344 80	
Balance of Profits carried forward	647,688 32	
Dividend No. 125, payable 2nd January, 1914	171,393 08	
Bonus, Two per cent., payable 2nd January, 1914.	116,176 70	
Former Dividends unclaimed	1,310 70	
		7,747,913 60
Total Liabilities to Shareholders		$13,559,258 40
Notes in Circulation	$4,630,890 00	
Deposits not bearing interest	$8,604,347 66	
Deposits bearing interest, including interest accrued to date	51,184,242 71	
	59,788,590 37	
Balances due to other Banks in Canada	540,263 77	
Balances due to Banks and Banking Correspondents in the United Kingdom and foreign countries	783,418 32	
Bills Payable	184,747 44	
Acceptances under Letters of Credit	931,914 76	
Liabilities not included in the foregoing	87,378 99	
Total Liabilities to the Public		$66,947,203 65
		$80,506,462 05

ASSETS.

Gold and Silver Coin	$1,609,657 87	
Dominion Government Notes	8,524,405 25	
Deposit in Central Gold Reserves	500,000 00	
Notes of other Banks	674,007 12	
Cheques on other Banks	3,048,680 85	
Balances due by Banks and Banking Correspondents elsewhere than in Canada	1,609,129 65	
	$15,965,880 74	
Dominion and Provincial Government Securities, not exceeding market value	407,120 43	
Canadian Municipal Securities and British, Foreign and Colonial Public Securities other than Canadian, not exceeding market value..	531,352 85	
Railway and other Bonds, Debentures and Stocks, not exceeding market value	5,299,059 57	
Call and Short (not exceeding thirty days) Loans in Canada on Bonds, Debentures and Stocks	4,651,964 71	
Call and Short (not exceeding thirty days) Loans elsewhere than in Canada	247,498 10	
		$27,102,876 40
Other Current Loans and Discounts in Canada (less rebate of interest)	48,495,567 06	
Other Current Loans and Discounts elsewhere than in Canada (less rebate of Interest)	24,275 99	
Liabilities of Customers under Letters of Credit as per contra	931,914 76	
Real Estate, other than Bank Premises	16,569 56	
Overdue Debts (estimated loss provided for) ...	146,132 38	
Bank Premises, at not more than cost, less amounts written off	3,488,029 08	
Deposit with Minister of Finance for the purposes of the Circulation Fund	263,900 00	
Mortgages on Real Estate sold	37,196 82	
		53,403,585 65
		$80,506,462 05

C. A. BOGERT,
General Manager.

Toronto, 31st December, 1913.

ASBESTOS

WE CARRY THE LARGEST COMPLETE STOCK IN CANADA

ASBESTOS SHINCLES
ASBESTOS LUMBER
ASBESTOS MILLBOARD
ASBESTOS PAPER
ASBESTOS PACKING
ASBESTOS ROOFING
ASBESTOS PIPE COVERING
ASBESTOS CEMENT
ASBESTOS CURTAINS

CANASCO RUBBER ROOFING 1, 2 AND 3 PLY
COTTON WASTE, WHITE AND COLORED, AND WOOL WASTE
OAKUM, PLUMBERS AND NAVY
BEAVER BOARD
RAILWAY AND ENGINEERS' SUPPLIES

WE EMPLOY A LARGE STAFF OF EXPERIENCED WORKMEN AND UNDERTAKE THE COVERING OF STEAM PLANTS AND COLD STORAGE ANYWHERE IN CANADA.

CANADIAN ASBESTOS COMPANY
42 TO 48 YOUVILLE SQUARE MONTREAL MAIN 332 AND 611

ESTABLISHED 1888

McLean, Szeliski & Stone

Limited

General Insurance
Brokers and Insurance
Engineers

Managers
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of Canada

Sprinklered, Mill and Fireproof
Factory Risks a Specialty

Rates quoted in competition with Lloyds and Mutual Insurance for covering in absolutely first-class companies

Special REAL ESTATE Department
in charge of Realty Expert to give information and assist in locating

Factory and Business Sites

CANADA PERMANENT BUILDING
22 Toronto Street Phone Main 1265

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of December, 1913.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload lots; L.C.L., less than carload lots.)

C.R.C.	R.R. No.	Effective.	Description.
Canadian Pacific Railway.			
Sup. 16 E 2529	Sup. 16 E 2133	Jan. 22-13	Commodities to points in U. S. Reduction.
Sup. 23 E 2342	Sup. 23 E 1942	Dec. 26-13	Commodities between points in Canada. Reduction.
Sup. 2 E 2629	Sup. 2 E 2243	Dec. 20-13	Plastic lumber C.L. Ottawa to points in Eastern Canada. Reduction.
Sup. 10 E 2570	Sup. 10 E 2178	Jan. 17-14	Commodity tariff to U. S. points. Reduction.
Sup. 29 E 1575	Sup. 29 E 1161	Dec. 17-13(R) Jan. 13-14(A)	Class and commodity rates and arbitraries to points on connecting lines. Advance reduction.
Sup. 1 E 2713	Sup. 1 E 2330	Jan. 1(R)14 Jan. 31(A)14	Commodities between C. P. stations.
Sup. 8 E 2560	Sup. 8 E 2167	Jan. 2-14	Import mdse. St. John W. St. John and Halifax to C. P. stations.
Sup. 6 E 2646	Sup. 6 E 2262	Jan. 3-14	Switching and interswitching at C. P. stations.
E 2733 cancels E 2680	E 2352 cancels E 2296	Feb. 1-14	Warehouse storage charges at C. P. stations.
Sup. 88 E 2071	Sup. 88 E 1668	Jan. 8-14(R) Feb. 2-14(A)	Lumber and forest products between C. P. stations.
Sup. 11 E 2570	Sup. 11 E 2178	Jan. 29-14	Commodities C.P. stations to U. S. points.
Sup. 2 E 2713	Sup. 2 E 2330	Jan. 1-14(R) Jan. 31-14(A)	Commodities between C.P. stations and to points in Maritime Provinces.
Sup. 5 E 2713	Sup. 5 E 2330	Jan. 15-14	Commodities between C. P. stations and from and to connecting lines.
Sup. 7 E 2643	Sup. 7 E 2259	Jan. 12-14	Pig iron C.L. between C.P. stations and to connecting lines. Reduction.
E 2740 cancels E 2619	E 2360 cancels E 2232	Jan. 24-14	Commodities points in Eastern Canada to B. C. coast points. Reduction.
Sup. 17 E 2629	Sup. 17 E 2133	Feb. 15-14	Commodity rates from C. P. stations to points in the U. S.
E 2732	E 2351	Jan. 1-14	Cartage charges.
Lake Shore & Michigan Southern Railway.			
Sup. 8 251		Feb. 10-14	Class and commodity rates to points in Canada.
Sup. 12 1918	Sup. 12 9183	Feb. 10-14	Classes and commodities stations to points in the U. S.
Sup. 28 1751	Sup. 28 8764	Feb. 10-14	Commodities Buffalo, Black Rock and Suspension Bridge to points in Canada.
2164 cancels 2105	9415A cancels 9415	Jan. 1-14	Cartage allowance at Aylmer, Ont.
Central Railroad of New Jersey.			
778 cancels 776		Feb. 3-14	Iron and steel articles C.R.R. of N.J. stations to points on C.P.R.

THE CANADIAN BANK OF COMMERCE

Report of the Proceedings of the Annual Meeting of Shareholders

TUESDAY, 13th JANUARY, 1914

The forty-seventh Annual Meeting of the Shareholders of The Canadian Bank of Commerce was held in the banking house at Toronto, on Tuesday, 13th January, 1914, at 12 o'clock.

The President, Sir Edmund Walker, having taken the chair, Mr. A. St. L. Trigge was appointed to act as Secretary, and Messrs. Aemilius Jarvis and Edward Cronyn were appointed scrutineers.

The President called upon the Secretary to read the Annual Report of the Directors, as follows:

Report

The Directors beg to present to the Shareholders the forty-seventh Annual Report, covering the year ending 29th November, 1913, together with the usual statement of Assets and Liabilities:

The balance at credit of Profit and Loss Account, brought forward from last year, was		$ 771,578 88
The net profits for the year ending 29th November, after providing for all bad and doubtful debts, amounted to		2,992,951 10
		$3,764,529 98
This has been appropriated as follows:		
Dividends Nos. 104, 105, 106 and 107, at ten per cent. per annum		$1,500,000 00
Bonus of one per cent. payable 1st June		150,000 00
Bonus of one per cent. payable 1st December		150,000 00
Written off Bank Premises		500,000 00
Transferred to Pension Fund (annual contribution)		80,000 00
Transferred to Rest Account		1,000,000 00
Balance carried forward		384,529 98
		$3,764,529 98

In accordance with our usual practice the assets of the Bank have again been carefully revalued and ample provision made for all bad and doubtful debts.

The following branches were opened during the year: In British Columbia: Comox, Courtenay, Pandora and Cook (Victoria), and Parksville; in Alberta: Highland, Monitor, Peace River Crossing and Retlaw; in Saskatchewan: Kincaid, Readlyn, Shaunavon and Wiseton; in Manitoba: Kelvin Street (Winnipeg); in Ontario: Oshawa and Port McNicoll; in Quebec: Upper Town (Quebec), and in New Brunswick: Campbellton, Moncton and West St. John.

The sub-agencies mentioned below have been made independent branches:

Asbestos, Chambly, Clarenceville, Dunham, Iberville, Lacolle, Roxton Falls, Stanbridge East and Uppertown (Sherbrooke), all in the Province of Quebec.

The branches at Stewart, B.C., Black Lake, Que., and St. Elizabeth, Que., have been closed, and the business of the branch at 367 Main Street South, Winnipeg, has been transferred to the main office in Winnipeg. The business of the sub-agencies at Naramata, B.C., Beloeil Station, Henryville, Lawrenceville, St. Philippe de La Prairie, St. Sebastien, Sweetsburg and Upton, all in the Province of Quebec, has been transferred to their respective parent branches. Since the close of the year branches have been opened at St. Denis and Duluth (Montreal), Bath, N.B., and Bristol, N.B.

Due notice has been received of the intention to nominate Mr. T. Harry Webb, of Messrs. Webb, Read, Hegan, Callingham & Co., Montreal and Winnipeg, and Mr. James Marwick, C.A., of Messrs. Marwick, Mitchell, Peat & Co., Montreal, as auditors of this Bank under the provisions of sub-section 10 of section 56 of the Bank Act.

The branches and agencies of the Bank in Canada, the United States, Great Britain, Newfoundland and Mexico, and the departments of the Head Office have undergone the usual thorough inspection during the year.

The Directors wish again to express their appreciation of the efficiency and zeal shown by the officers of the Bank in the performance of their duties.

ALEXANDER LAIRD, General Manager.
B. E. WALKER, President.
Z. A. LASH, Vice-President.

Toronto, 13th January, 1914.

General Statement

29th November, 1913.

LIABILITIES.

Notes of the Bank in circulation		$ 15,642,923 18
Deposits not bearing interest	$ 52,798,205 84	
Deposits bearing interest, including interest accrued to date	$140,015,509 40	
		192,813,715 24
Balances due to other Banks in Canada		633,237 12
Balances due to Banks and Banking Correspondents elsewhere than in Canada		10,071,316 73
Bills payable		9,515,787 65
Acceptances under Letters of Credit		1,941,544 19
		$230,618,524 11
Dividends unpaid		2,666 48
Dividend No. 107 and bonus, payable 1st December		525,000 00
Capital paid up	$15,000,000 00	
Rest	13,500,000 00	
Balance of Profit and Loss Account carried forward	384,529 98	
		28,884,529 98
		$260,030,,720 57

ASSETS.

Current Coin and Bullion	$ 9,579,473 66	
Dominion Notes	20,836,182 50	
		$ 30,415,656 16
Balances due by Banks and Banking Correspondents elsewhere than in Canada	$6,884,652 83	
Balances due by other Banks in Canada	22,122 47	
Notes of other Banks	3,106,230 00	
Cheques on other Banks	6,418,425 14	
		16,431,430 44
Call and Short Loans in Canada on Bonds, Debentures and Stocks		9,610,550 08
Call and Short Loans elsewhere than in Canada		16,154,360 65
Dominion and Provincial Government Securities		3,434,605 06
British, Foreign and Colonial Public Securities and Canadian Municipal Securities		2,431,989 71
Railway and other Bonds, Debentures and Stocks		18,091,224 04
Deposit with the Minister for the purposes of the Circulation Fund		738,500 00
		$ 97,308,316 14
Other Current Loans and Discounts in Canada (less rebate of interest)		$136,474,874 82
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest)		18,102,015 15
Overdue Debts (estimated loss provided for)		487,554 72
Real Estate (including the unsold balance of former premises of the Eastern Townships Bank)		979,915 61
Mortgages on Real Estate sold by the Bank		433,607 32
Bank Premises		4,281,481 60
Other Assets		21,411 02
Liabilities of customers under Letters of Credit, as per contra		1,941,544 19
		$260,030,720 57

B. E. WALKER, President.
Z. A. LASH, Vice-President.
ALEXANDER LAIRD, General Manager.

The motion for the adoption of the report was then put to the meeting and carried. Amendments to the by-laws regulating the number of directors of the Bank were passed, and Mr. T. Harry Webb, C.A., of Messrs. Webb, Reid, Hegan & Callingham, Montreal and Winnipeg, and Mr. James Marwick, C.A., of Messrs. Marwick, Mitchell, Peat & Co., Montreal, were appointed auditors of the Bank, their remuneration not to exceed the sum of $15,000 for the year. The usual resolutions expressing the thanks of the shareholders to the Board of Directors and also to the staff of the Bank were unanimously carried. Upon motion the meeting proceeded to elect directors for the coming year and then adjourned.

The scrutineers subsequently announced the following gentlemen to be elected as Directors for the coming year:—Sir Edmund Walker, C.V.O., LL.D., D.C.L., Hon. George A. Cox, John Hoskin, K.C., LL.D., J. W. Flavelle, LL.D., A. Kingman, Hon. Sir Lyman Melvin Jones, Hon. W. C. Edwards, Z. A. Lash, K.C., LL.D., E. R. Wood, Sir John M. Gibson, K.C.M.G., K.C., LL.D., Robert Stuart, George F. Galt, Alexander Laird, William Farwell, D.C.L., Gardner Stevens, A. C. Flumerfelt, George G. Foster, K.C., Charles Colby, M.A., Ph.D., George W. Allan, H. J. Fuller, F. P. Jones.

At a meeting of the newly elected Board of Directors held subsequently, Sir Edmund Walker, C.V.O., LL.D., D.C.L., was elected President, and Mr. Z. A. Lash, K.C., LL.D., Vice-President.

The Canadian Bank of Commerce

Paid-up Capital $15,000,000
Rest $13,500,000

DRAFTS ON FOREIGN COUNTRIES

Every Branch of this Bank is able to issue, on application, drafts on the principal points in the following countries:

Africa	France	Peru
Arabia	French Cochin-China	Philippine Islands
Argentine Republic	Germany	Portugal
Australia	Great Britain	Roumania
Austria-Hungary	Greece	Russia
Belgium	Holland	Servia
Brazil	Iceland	Siam
Bulgaria	India	Siberia
Ceylon	Ireland	Soudan
Chili	Italy	South Africa
China	Japan	Spain
Crete	Java	Straits Settlements
Cuba	Malta	Sweden
Denmark	Manchuria	Switzerland
Egypt	Mexico	Turkey
Faroe Islands	Norway	United States
Finland	Panama	Uruguay
Formosa	Persia	West Indies

THE ROYAL BANK OF CANADA

Incorporated 1869

Capital Authorized . . . $25,000,000
Capital Paid up $11,560,000
Reserve & Undivided Profits $13,000,000
Total Assets $180,000,000

HEAD OFFICE, MONTREAL

BOARD OF DIRECTORS

H. S. Holt, President E. L. Pease, Vice-President
E. F. B. Johnston, K.C., 2nd Vice-President

Wiley Smith	D. K. Elliott	Wm. Robertson
Hon. D. MacKeen	W. H. Thorne	A. J. Brown, K.C.
Jas. Redmond	Hugh Paton	W. J. Sheppard
G. R. Crowe	T. J. Drummond	C. S. Wilcox
	A. E. Dyment	

OFFICERS

E. L. Pease, General Manager
C. E. Neill and F. J. Sherman, Asst. Gen.-Managers
W. B. Torrance, Supt. of Branches

Branches in every Province of the Dominion of Canada and in Newfoundland; in Havana and throughout Cuba, Porto Rico and Dominican Republic; Bahamas, Nassau; Barbados, Bridgetown; Jamaica, Kingston; Trinidad, Port of Spain and San Fernando; British Honduras, Belize.

LONDON, ENG., OFFICE—Princes St., E.C.

NEW YORK AGENCY — Corner William and Cedar Sts

Savings Department at All Branches

Grand Trunk Railway.

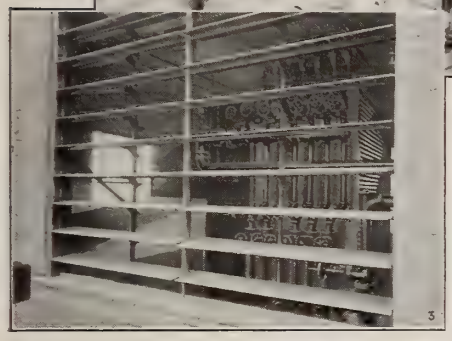
C.R.C.	R.R. No.	Effective.	Description.
Sup. 5 E 1357	Sup. 5 C.Y. 35	Jan. 24-14	Iron commodities Belleville to Parry Sound cancelled.
Sup. 8 E 2783	Sup. 8 C.I. 146	Jan. 12-14	Pig iron C.L. Colborne, Ont., to Guelph $1.25 per gross ton.
Sup. 9 E 2783	Sup. 9 C.I. 146	Jan. 12-14	Pig iron C.L. Hamilton to points on I.C.R. in N.B.
Sup. 7 E 2783	Sup. 7 C.I. 146	Jan. 3-14	Pig iron C.L. James Bay Jct. to Whitby, Ont., $1.60 per gross ton.
Sup. 3 E 2758	Sup. 3 C.U. 75	Feb. 1-14	Commodities Buffalo, Black Rock, Suspension Bridge to points in Canada.
Sup. 1 E 2855	Sup. 1 C.Y. 31	Jan. 1-14	Commodities between G. T. stations and from and to connecting lines.
E 2871	S 96	Jan. 1-14	Terminal arrangements at Guelph.
E 2874 cancels E 2706	C.R. 158 cancels C.R. 144	Feb. 4-14	Reconsignment and diversion of carload freight at St. Lambert.
Sup. 26 E 1095	Sup. 26 C.I. 30	Feb. 1-14	Iron and steel commodities Buffalo, Black Rock and Suspension Bridge to points in U. S.
E 2872 cancels E 2661	C.R. 157 cancels C.R. 141	Feb. 1-14	Warehouse storage charges.
Sup. 12 E 2524	Sup. 12 C.U. 67	Feb. 1-14	Commodities between G. T. stations and from and to connecting lines. Advance reduction.
Sup. 12 E 1928	Sup. 12 C.O. 61	Jan. 13-14	Canned goods C.L. Belleville, Napanee, etc., to Ottawa. Reduction.
Sup. 44 E 2318	Sup. 44 C.F. 206	Jan. 13-14	Basket bottoms C.L. Kearney to Grimsby and Beamsville, 10c. per 100 lbs. Reduction.
Sup. 2 E 2855	Sup. 2 C.Y. 31	Feb. 15-14	Commodities between stations in Canada. Advance reduction.
Sup. 19 E 2677	Sup. 19 S 88	Feb. 18-14	Switching at stations in Canada. Advance.
Sup. 13 E 2379	Sup. 13 E 40	Feb. 15-14.	Class and commodity rates stations in Canada to New York, Philadelphia, etc., for export. Reduction.
Sup. 13 E 2684	Sup. 13 C.U. 72	Feb. 16-14	Commodities between G. T. stations and to stations on connecting lines. Reduction.
Sup. 21 E 2677	Sup. 21 S 88	Jan. 19-14	Local switching on radiators at Brantford. Reduction.
Sup. 20 E 2677	Sup. 20 S 88	Feb. 16-14	Switching at Toronto. Advance.
Sup. 23 W 282	Sup. 23 A 1440	Feb. 10-14	Class and commodity rates stations in U. S. to points in Canada.

Michigan Central Railroad.

2165 cancels 2110	9423A cancels 9423	Jan. 1-14	Cartage charges at stations in Canada
Sup. 4 2033	Sup. 4 9465C	Feb. 2-14	Class and commodities M.C. stations in the U. S. to points in Canada.
Sup. 12 1907	Sup. 12 9086C	Feb. 20-14	Classes and commodities stations in Canada to points in U. S.







1 Air Supply Ducts leading from Fans to columns.
2 Columns from which air is delivered.
3 One of two fan units looking through fresh air inlet of Fan House.

100%
Available Floor Space

Because the Ford Motor Co., of Canada, Limited,
Provided for this System in their Plans.

The "Sirocco" TRADE MARK
HEATING AND VENTILATING SYSTEM

in this factory supplies Heat in the Winter—Provides for a Cool and Comfortable Atmosphere in Summer and insures positive ventilation the year 'round; **WITHOUT USING ONE SQUARE INCH OF FLOOR SPACE** to accomplish this ideal condition. Every piece of Heating and Ventilating apparatus is on the roof—out of the way. The "Sirocco" System **SAVED THEM MONEY** on initial cost; compared with direct radiation.

After a year's operation of the "Sirocco" System in the Canadian plant the Ford Motor Company have decided on a "Sirocco" System of Factory Heating and Ventilating together with 8 large units of "Sirocco" Purifying-Cooling and Humidifying apparatus to be installed in the new 800-ft. addition to their already mammoth works at Detroit. This is just another evidence of the fact that "Sirocco" Systems are confirming in **ACTUAL PRACTICE** the claims made for them.

A "Sirocco" System of Factory Heating and Ventilating in your plant would add materially to the good health of your employees, which means better work and more of it. Ask your Architect or Engineer to investigate "Sirocco" Systems or write us for any information you may desire regarding it.

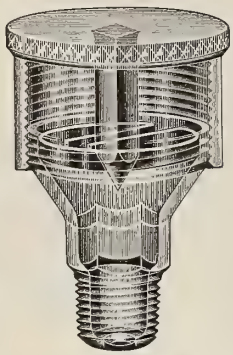
CANADIAN Sirocco COMPANY LIMITED

301 McGill Bldg. Montreal
43 Victoria St. Toronto

WINDSOR, ONTARIO

214 Donald St. Winnipeg
605---2nd W. Calgary

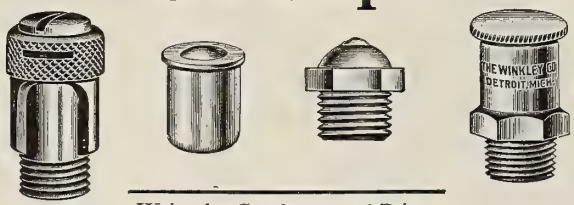
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Grease Cups

We Manufacture a Full Line of Plain, Compression Leather Washer and Ratchet Grease Cups in any finish required.

Complete **Oil Cups** Line



Write for Catalogue and Prices

Manufactured by

Canadian Winkley Co. LIMITED

Windsor, Ont.

Are You Sure Your Electrical Wiring is Safe?

There is but one absolutely safe method of wiring. Instal a CONDUIT SYSTEM, it will eliminate all risk of Fire.

"Galvaduct" & "Loricated" "Conduits"

HAVE NO EQUALS

Conduits Company Limited

TORONTO ***MONTREAL***

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

947. **Steel Hoes.**—A South African importer asks for catalogues and prices on Canadian-made steel hoes, weight 2 pounds.

950. **Wheels.**—Inquiry is made for catalogues and prices on Canadian-made wheels by a South African importing house.

951. **Carriage Parts.**—A South African importer asks for catalogues and price lists on Canadian-made carriage parts.

952. **Cream Separators.**—An East London firm of importers asks to be placed in touch with Canadian exporters of cream separators.

953. **Woodenware.**—Inquiry is made by a South African firm of importers for catalogues and prices on Canadian-made woodenware.

954. **Organs.**—A South African importer asks for catalogues and prices on Canadian-made organs.

955. **Woodenware.**—An East London importer asks for catalogues and prices on Canadian-made woodenware.

956. **Dairy Machinery and Implements.**—An East London firm asks for catalogues and prices on Canadian-made dairy machinery and implements.

957. **Woodenware.**—A South African asks to be put in touch with Canadian exporters of woodenware.

958. **Carriage Parts—Wheels, Hubs, Rims and Spokes.**—An East London importer makes inquiry for catalogues and prices on Canadian-made carriage parts.

959. **Paper Bags.**—A Durban firm asks for samples and prices on Canadian-made paper bags.

960. **Carriage Parts.**—Catalogues and quotations are requested by a Durban firm on cart and carriage parts of all kinds. If possible to submit samples and found satisfactory, big orders will be placed.

961. **Handles.**—A South African importer asks for catalogues and prices on all kinds of Canadian-made handles.

962. **Overalls.**—A Durban firm of dry goods merchants requests quotations on overalls in 9, 9 and 10 oz. Denims, navy, black and khaki, plain, bibbed, made as American overalls.

963. **Tools.**—Catalogues and quotations are requested by Durban firms on Canadian manufactured tools.

964. **Churns.**—A Durban firm requests correspondence, catalogues and prices on churns.

965. **Chairs.**—Catalogues and prices are asked for on cheap chairs by a Durban firm.

966. **Canned Goods.**—A Johannesburg firm of brokers requests correspondence re agency for Canadian canned goods.

967. **Faucet and Spigot Pipe.**—A large firm in Havana is anxious to get in touch with first-class Canadian manufacturers of faucet and spigot pipe for water and gas service and fittings for same with a view of representing them in the Island of Cuba.

SERVICEABLE **TAPS** ECONOMICAL

BUTTERFIELDS TAPS

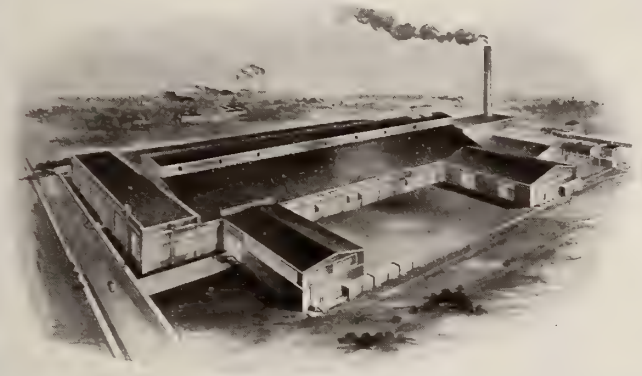
ARE GUARANTEED TO BE BOTH.



AND MORE— THEY ARE ACCURATE AND CLEAN CUTTING

If you are not satisfied with the TAPS you are using, try BUTTERFIELDS. If they do not prove to be all we claim for them, we will refund your money. Fair, isn't it?

BUTTERFIELD & CO., ROCK ISLAND QUE. CANADA



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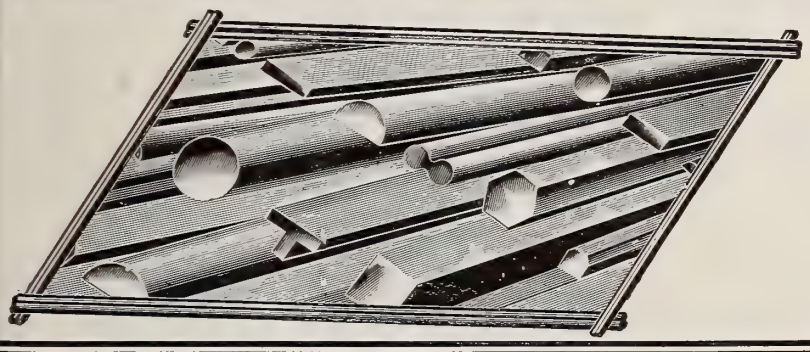
Cold Drawn, Cold Rolled
Turned and Polished Steel

The Canadian Drawn Steel Co., Ltd.

HAMILTON, CANADA

UNION DRAWN STEEL CO., Limited

HAMILTON, ONTARIO



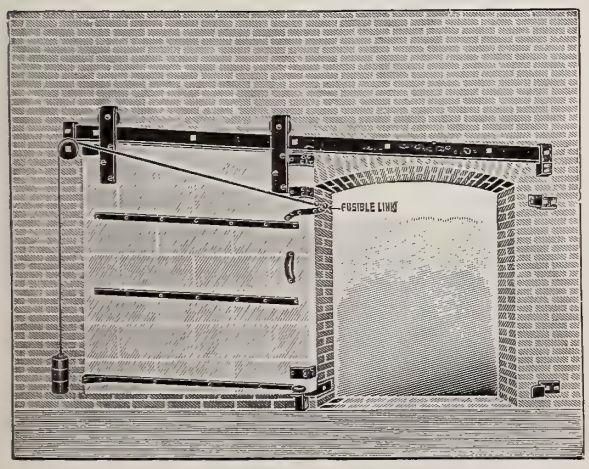
MANUFACTURERS OF

Shafting

Rounds, Flats, Squares and Hexagons

LARGEST STOCK IN CANADA

Get prices before ordering elsewhere.



MAXIMUM FIRE PROTECTION AND MINIMUM INSURANCE PREMIUM

Are Only Secured By Using

UNDERWRITERS INSPECTED HARDWARE LABORATORIES

Look For The Label

Richards Monarch A

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AMONG THE INDUSTRIES

Ontario municipalities have endorsed several industrial by-laws during recent elections.

At Wingham a by-law granting fixed assessment to Walker & Clegg, furniture manufacturers, who recently suffered heavy loss by fire, has been carried.

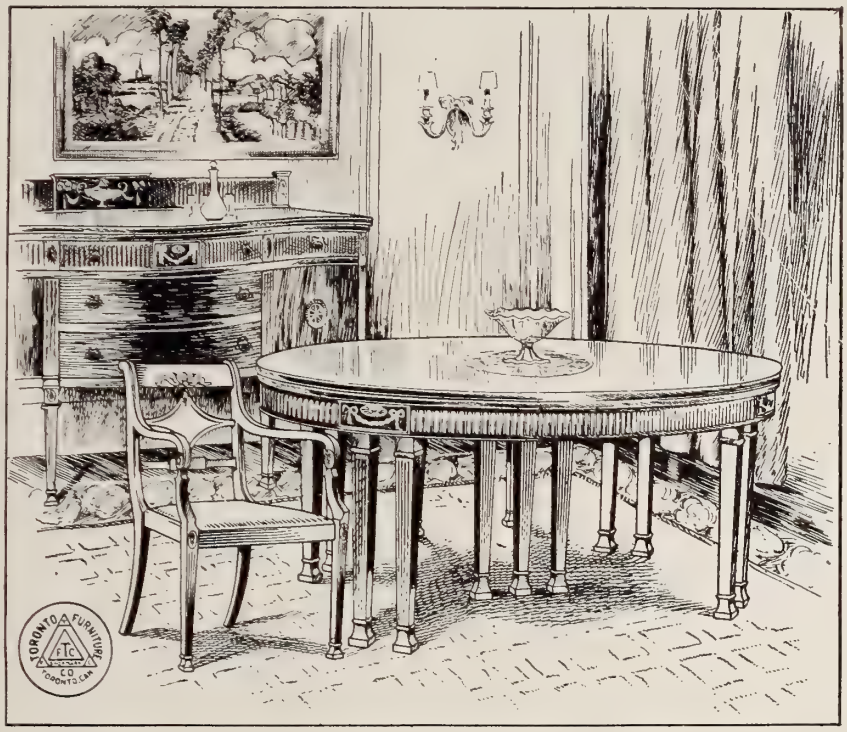
At Highgate a by-law to grant to the Southern Ontario Gas Company, Limited, the right to lay and maintain pipes through the village has been carried.

The electorate of Courtright has endorsed the twenty-five-year franchise to the Union Gas Company.

Southampton, Ont., endorsed a by-law to aid the Steel Furniture and Fittings, Limited. The town agrees to guarantee repayment of money borrowed to the extent of $10,000.

T. Pringle and Sons, Limited, the firm of eminent architects and engineers of Montreal, have established in St. John a branch office for the Maritime Provinces. They say that business houses in the upper provinces have not fully realized, and have therefore neglected good opportunities in the Maritime Provinces, of which prompt advantage has been taken by American concerns. Oil Processes, Limited, an Ottawa company, with $7,000,000 capital, and which has lately been incorporated, is one of the companies which propose to develop the oil fields in Albert County. The Atlantic Oil Fields, Limited, which was organized last fall by Captain von der Osten, of Berlin, Germany, proposes to operate in the adjoining county of Kings, and hopes to find potassium as well as oil, salt and gypsum. The minerals of the province are expected to attract a good deal of attention during the coming year. Speaking of new industries, the publicity commissioner of Fredericton says that two new mills will be erected there in the spring, and that several other concerns will enlarge their plant. The industrial outlook throughout the province generally for the coming year is considered bright.

The importance of the lumber industry to St. John and the Province of New Brunswick generally is shown by the extent of the exports for the year 1913. While there has been some falling off in the quantity of lumber cut during the last few years, it has been due to market conditions instead of to any falling off in the available sources of supply. Spruce is still king, but some pine is cut, as well as hemlock and cedar, and a considerable quantity of hardwood. The new Transcontinental Railway, and the International Railway, which runs across the northern part of the province, have opened up very valuable sections of hardwood timber, including birch, maple and beech. There are fine opportunities along the new railways for the establishment of industries requiring hardwood as their raw material. The total exports of lumber from New Brunswick to trans-Atlantic ports last year was over 270,000,000 feet, of which over 86,500,000 feet was shipped from the port of St. John. There were also large shipments to the United States, some by water and some by rail. The shipments from St. John to the American market for the year were valued at $1,527,000. The quantity of pulp shipped from St. John to that market for the year was valued at over $328,000, and the pulp-wood at over $83,000. There is a growing trade in New Brunswick lumber with the Montreal district and Eastern Ontario, and during last year, when other markets were dull, this was an important branch of the trade in the northern section of the province. One of the very important industrial developments of New Brunswick in coming years will be the establishment of factories to utilize lumber which is now shipped in such large quantities in the rough state to outside markets, there to be manufactured into articles of use.



An Adam Dining-Room Suite in Solid Mahogany.

FINE PERIOD FURNITURE

"MADE IN CANADA."

THE Toronto Star, in its issue of December 31, speaking editorially of the unfounded preference shown for imported goods, says:

Is it not a belated and unsound instinct that indulges in a desire for something that has no other merit than that it is "different" from what is Canadian made, and, so, a bit "exclusive"? . . . . Are we not—and we are most of us in this respect sinners more or less—essentially disloyal to our own country when we do not take pains to see that our more important purchases help build up Canadian industries rather than their rivals? . . . . Imports and loans from abroad to balance with their incidental commissions and charges paid outside this country are good enough in their place, but trade of maximum value to Canada is trade **within** Canada. Why not, therefore, go in for a more intensive cultivation of own trade resources?

We do not plead for a patronage of Canadian furniture at any price. We do not urge a buyer to give preference to our goods simply because they are made in Canada. This would be unjust and foolish. But we do believe that he ought to accord to our furniture, the same careful consideration as he would to any imported productions. That much we feel we are reasonably entitled to.

Let any manufacturer then, who proposes to buy furniture, compare closely any of our designs, line for line, wood for wood, finish for finish, workmanship for workmanship, price for price with any imported line and we shall be very much mistaken, if, everything considered, he doesn't give an unhesitating decision in favour of ours. In strict justice to yourself and to us we ask you to make this comparison the next time you are buying furniture for the home. The leading dealer in your locality has our furniture on his floors or will be glad to show you a portfolio of photographs of our complete line for your approval and selection. We will send you his name on request

This shop-mark — found on all our furniture — signifies our proud acceptance of full responsibility for the design, materials and workmanship.

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When it breaks—have it welded! you will save time, temper and money this way!

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When your customers ask for "Welded" articles—what do you offer?

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Better see about your outfit! Our booklet explains, write at once.

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MONTREAL, CANADA

The industrial outlook continues good in Eastern Nova Scotia. Antigonish is now to the front with a new industry, one which will give increased employment and add considerably to the town's commercial importance. The Colonial Lumber Company, a United States concern, has just about completed the equipment of a plant for the manufacture of hardwood flooring, veneering, wainscotting, etc. They have timber areas in Antigonish and Guysboro Counties that will assure a supply of 4,000,000 feet annually. The company will commence operations in the early spring. The plant represents an investment of over $200,000. The factory is equipped with the finest of modern machinery, with the latest constructions of kilns for drying the wood. There is a heavy demand in the United States market for finished hardwood, and it is the intention to ship large quantities of veneering to the company's headquarters in Boston. The factory is close to the I.C.R. tracks, and a siding large enough to accommodate ten cars is being constructed. About sixty-five men will be employed in the factory.

The British Columbia Refining Company has declared its first dividend, at the rate of ten per cent. The company made a net profit of $60,000 in 1913. The board of directors is: Mr. J. A. Cunningham, New Westminster, general manager and secretary-treasurer; Messrs. W. H. Leckie, F. R. Begg, Robert Kelly, J. R. Duncan, Leon Melekov, of Vancouver, and P. D. Roe, of Port Moody.

Mr. Frederick Nicholls, president of the Canadian General Electric Co., Limited, delivered an interesting address at a meeting of directors held on the 27th day of December, 1913, to commemorate the twenty-fifth anniversary of the organization of a syndicate to enquire into the feasibility of establishing, in Toronto, a system of incandescent electric lighting. The same syndicate subsequently organized the Canadian General Electric Company, Limited.

At the time of the formation of the Canadian General Electric Company, the capital assets consisted solely of the land and buildings at Peterboro, whereas to-day the company own ten manufacturing establishments, the head office, and six branch office buildings. The factories comprise: The main Electrical Works at Peterboro; the Electric Porcelain Works at Peterborough; the Canada Foundry Works at Toronto; the Architectural Bronze and Iron Works at Toronto; the Electric Supply Works, Toronto; the Canadian Sunbeam Lamp Works, Toronto; the Bridge and Structural Steel Works at Bridgeburg, Ontario; the Canadian Allis-Chalmers Works at Montreal; the Tungsten Electric Lamp Works at Montreal; and the Flour Mill Machinery Works at Stratford, Ontario.

Where a little over a year ago was a unoccupied tract of land near the steel works at Trenton, N.S., the extensive car shops of the Eastern Car Company are now in active operation, covering sixty-eight acres, employing about 1,400 men, and turning out from twenty to twenty-five steel-framed freight box cars daily. This company was started by the Nova Scotia Steel and Coal Company, which holds all the issued common stock, giving it, of course, the controlling interest. The car shops use largely the finished product of the steel works, and it is the intention to begin the construction of steel cars, which will mean a considerably increased output. Although the present is considered the slack season in car construction the shops at Trenton are being worked to almost their full capacity, and greater extensions will be made to the plant during the coming year.

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Toronto Wire, Iron and Brass Works Co., Limited

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FACTORY LOCKERS

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The employer PROTECTION against fire from lighted pipes carelessly left in pockets.

Neatness and order in the shop.



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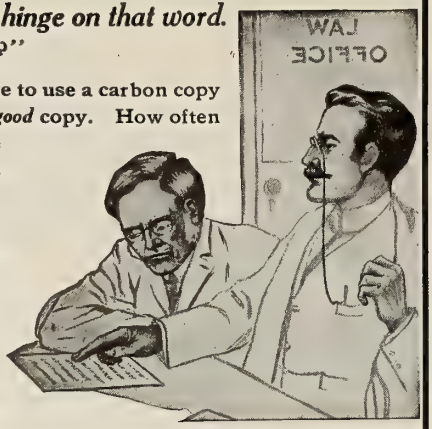
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ETC., ETC

PUMPS
CONCRETE MIXERS
HOISTS, Etc.

Write, if interested

A soap factory is contemplated by H. Schure of Hamilton, Ontario; cost, $12,000.

The Home Bank of Canada propose to erect additions to their building at London, Ontario.

Plans are in progress for remodelling the front of the *News-Telegram* building at Calgary, Alta.

The Valley City Seating Company have plans drawn for additions to their factory at Dundas, Ontario.

The Haldimand Gypsum Company contemplate the erection of a mill at Caledonia, Ont. Cost, $20,000.

The erection of a mill is contemplated by the Papineauville Lumber Company, Papineauville, Que., for the manufacture of hardwood veneers for cooperage and cheese boxes.

A by-law has been passed granting the Concrete Machinery Company of Woodstock, Ontario, a loan of $20,000 for improvements to their plant.

A permit has been granted to Kelly-Douglas & Company to rebuild their warehouse, which was destroyed by fire; cost, $40,000.

The Niagara Linen Company, Niagara Falls, N.Y., propose erecting a factory to cost $50,000 on Fourth St., Niagara Falls, Ontario.

The people of London, Ontario, defeated the by-law granting loan of $25,000 to the Grobb Manufacturing Company on January 1st.

Plans are now being prepared for the cold storage warehouse of Vancouver-Prince Rupert Meat Company at Vancouver, B.C.

Messrs. J. T. Wing & Company have plans in progress for an addition to their soap factory at Windsor, Ontario, at an estimated cost of $30,000.

At Goderich, Ontario, the Goderich Milling & Lumber Company are at present negotiating with the council for exemptions on their proposed planing mill.

The St. George Pulp & Paper Company of St. George, N.B., contemplate enlarging their pulp mill, and it is understood that they may also erect a paper mill.

A by-law has been passed granting the Steel Furniture & Fittings, Limited, a free site and exemption from taxation for ten years at Southampton, Ont.

At Chemainus, B.C., machinery has been purchased for a saw mill with a daily capacity of 50,000 ft., which P. Welch proposes to erect on the Pacific Great Eastern Railway.

The ratepayers of Fort William will vote on a by-law to raise $30,000 for the purpose of acquiring, establishing and equipping a stone quarry and to construct and equip an extension of the street railway to such quarry.

The Iona Gypsum Co., Limited, of Iona, C.B., will shortly erect a plant, including mill, warehouse, mixing building and power house, the capacity of which will be about 1,400 barrels per day, on the shore of the Big Bras d'Or Lake.

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Manufactured for Half a Century—the Standard of Excellence



Try it and Compare
Its Surface Covering Capacity
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Nova Scotia Steel & Coal Co.

LIMITED

Head Office: New Glasgow, Nova Scotia

Steel Works - - - - TRENTON, N.S.

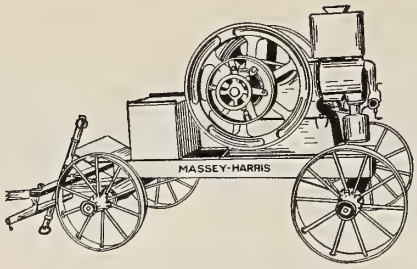
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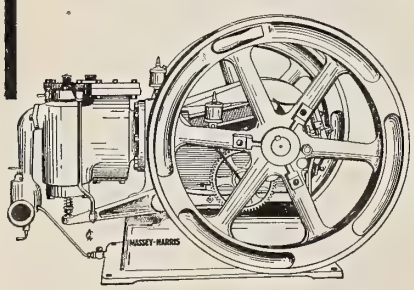
The Hopper may be removed at any time and a Plate substituted, thus changing the Engine to the Closed Jacket style which is sometimes preferred where an abundant supply of water is available.

While the Hopper Jacket is the popular type for farm use, we can supply either style, and one can be changed to the other at any time by simply buying the Plate or Hopper.

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Agencies Everywhere

Mr. A. F. Yarrow has bought out the B.C. Marine Company, and intends establishing a branch at Esquimalt, B.C.

The first annual convention of the Canadian Branch Managers of the Ford Motor Company of Canada, Limited, was held at Ford, Ontario, in January. The heads of the Ford branches from eleven cities came to Ford, Ontario, for a convention which is expected to become an annual event. The branch managers in session were Messrs. F. I. Fox, of Toronto; W. L. Stoneburn, of Montreal; George A. Malcolmson, of Winnipeg; D. L. McIntyre, of Hamilton; W. R. Smith, of London; W. S. Kickley, of Vancouver; H. C. Hersey, of Calgary; C. S. Hoben, of Saskatoon; and W. C. Warburton, of St. John; also Mr. C. G. Bullis, of the Saskatchewan Motor Company of Regina, and Messrs. Don. McGregor and John Buck, of the Universal Car Agency of Windsor.

On October 9, 1913, a decision was handed down by Judge Ray, of the United States District Court for the Southern District of New York, sustaining and enforcing the fundamental Davidson patents owned by the American Blower Company of Detroit, covering fans of the multi-blade or squirrel-cage type, being reissued patents Nos. 12,796 and 12,797. This suit, brought to suppress an infringement by the B. F. Sturtevant Company, of Hyde Park, Massachusetts, has been under prosecution continuously since 1908, having been commenced by the Sirocco Engineering Company, which then owned the patents, and which was consolidated with the American Blower Company in January, 1909, since which time the suit has been vigorously prosecuted by the latter company.

The most important industrial announcement made in St. John, N.B., for some time is that to the effect that T. McAvity and Sons, Limited, will call for tenders early this year for the erection of the largest part of a great plant on a site comprising twenty-two acres located beyond the Marsh Bridge. Here the firm propose to assemble their whole iron and brass manufacturing plant, and steadily enlarge their operations until there will be, as shown in the plans that have just been prepared, a group of sixteen different buildings, and an industry affording employment to between twelve and fifteen hundred people. The contract for the whole sixteen buildings will not be awarded this year, but it is proposed to erect a very large part of the entire plant within the next two years, beginning, of course, in the present year. A spur will connect the plant with the Intercolonial Railway, and the St. John Valley Railway and Grand Trunk Pacific will also be connected when they come in to their St. John terminals at Courtenay Bay.

CANADA'S IMMIGRATION.

The total immigration to Canada during the first nine months, April to December, of the current fiscal year, was 350,521, made up of 134,317 British, 90,540 American and 125,664 from all other countries.

During the corresponding nine months of last fiscal year the total number was 334,083, composed of 127,875 British, 113,789 American and 92,410 from all other countries. The increase is 5 per cent.

During the calendar year 1913, the total immigration to Canada was 418,870, made up of 156,984 British, 115,751 American and 146,135 from all other countries.

During the calendar year 1912, the total number was 395,804, composed of 145,859 British, 140,143 American and 109,802 from all other countries. The increase was 6 per cent.

INDUSTRIAL CANADA

ISSUED BY

The CANADIAN MANUFACTURERS ASSOCIATION.

INCORPORATED.

Vol. XIV | TORONTO, MARCH, 1914 | No. 8

INDUSTRIAL CANADA

Issued monthly as the official publication of the Canadian Manufacturers Association (incorporated), and devoted to the advancement of the industrial and commercial prosperity of Canada

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Misapprehensions of The Monetary Times.

THE *Monetary Times,* Toronto, a financial weekly which has been long established, and which is usually reliable, makes so many mistakes in a recent editorial discussing the attitude of manufacturers towards the Ontario Workmen's Compensation Bill that we cannot allow them to go uncorrected. It says:

"The Canadian Manufacturers Association have from time to time through their legal mouthpiece, Mr. Wegenast, expressed their approval of the grouping system as against individual liability. The *Monetary Times* is opposed to the grouping system and so are a large number of Canadian manufacturers. The Hamilton manufacturers, represented by Mr. Lynch-Staunton, K.C., at the recent conference with the Government, disapproved also of the grouping system. The Ontario Government have received letters from many leading manufacturers expressing opposition to that system, and the casualty and liability insurance companies have also a pile of such letters. They disapprove in emphatic language of the grouping system and ask that in any event they should be given the choice either to join the Government scheme or to insure their liability with a duly qualified insurance company.

"Does Mr. Wegenast represent actually the views of the majority of the manufacturers of Ontario in regard to the Government scheme of grouping industries? We believe he does not. The matter should have been considered individually by the manufacturers rather than leaving practically the entire matter to their legal representative, however able he may be. Mr. P. W. Ellis, speaking for the manufacturers at the recent conference, read a list of twenty objections to the present form of the bill. When the cabinet ministers commenced to question him, he immediately sidestepped and proposed that Mr. Wegenast should answer the questions. This incident is mentioned merely to show that the manufacturers have not given the subject individual attention."

The *Monetary Times* apparently wishes to convey the impression to the public that there is a hopeless division of opinion among manufacturers as to Workmen's Compensation. This is an erroneous impression. While there may be some difference of opinion among the manufacturers on this subject, as there is usually difference of opinion among intelligent men upon any important subject, the majority are united as to the fundamental principles upon which a workmen's compensation law should be based. Further, the Hamilton manufacturers did not object to the grouping system; what they did object to was the proposed plan of rating.

The *Monetary Times* is visibly affected by the fear that Mr. Wegenast, the legal secretary of the Canadian Manufacturers Association, does "not represent actually the majority of the manufacturers of Ontario." No doubt the manufacturers will appreciate this disinterested concern for their welfare.

There is one organization of manufacturers in Canada—the Canadian Manufacturers Association. For three years its Special Committee, under the able chairman, Mr. P. W. Ellis, of Toronto, has studied this question. It informed the manufacturers of Ontario of every step in the struggle to secure a fair and equitable system of compensation. Its reports were approved by the Executive Council and adopted at the annual meeting—not once, but several times. The advice of not only Ontario, but also of Canadian manufacturers, was sought in guiding the policy of the committee, and the views obtained were incorporated in the final presentation to the Government. There was no lack of opportunity to make objections or to make suggestions.

While the *Monetary Times* and its friends may be able to produce letters from dissatisfied manufacturers, we can state positively that these will represent the views of only a small fraction of the total number of employers in Ontario. Further, we believe that many of these letters were written in answer to circulars sent out by the casualty companies, who, instead of striving to obtain impartial information, asked leading questions which tended to produce replies supporting their own contentions. During the hearings before the Commissioner the employers of Waterloo County submitted a petition to the Commissioner by special counsel complaining that replies which they had made to a misleading circular of the casualty companies were being used to attack the proposals of the Canadian Manufacturers Association, with which they, the employers of Waterloo County, were in accord.

Recent activities of the lability companies are largely a repetition of these tactics. It must be a weak case which is forced to rely for support upon attempts to discredit the credentials of representatives of the opposition.

The inspiration of the *Monetary Times'* editorial is apparent. It describes itself as a "Trade Review and Insurance Chronicle," and naturally defends the interests of the insurance companies. In the same editorial from which we quote above, the *Monetary Times* says:

"As to the casualty companies, they are not concerned with the provisions of the bill as regards the schedule of indemnities, nor have they any voluntary suggestions to offer respecting it. They have a right, however, to claim that the manufacturer should be given an option either to join the grouping system or to insure his liability. They have their own arguments against the grouping system as being a complicated arrangement that is bound to cause trouble and from the operation of which the Government may experience considerable difficulties. They can produce the best expert evidence against this grouping system or State insurance, and they have letters from manufacturers who at the present time carry insurance, stating their opposition to State insurance in any form. Many manufacturers frankly admit they have not given the matter any consideration whatever. With these letters in the possession of the insurance companies, they appear to be just as capable of speaking for the manufacturers in general as is the committee of the Manufacturers Association."

Naturally, the *Monetary Times* believes that the insurance companies are "just as capable of speaking for the manufacturers in general as the Committee of the Manufacturers Association."

It would be an extraordinary spectacle to see the manufacturers place their case in the hands of the liability companies for argument. The manufacturers prefer to speak for themselves. While the *Monetary Times* "is opposed to the grouping system," its reasons are not given for such opposition. They may be withheld because they approximate closely to those advanced by the casualty companies; but, in any case, we would like to have the *Monetary Times* define a scheme of compensation which will stand expert comparison with that which it so vaguely denounces.

Free Wheat.

A GREAT deal has been said and written on the subject of free wheat, but some important aspects of the problem have received all too little attention. What about the Hudson's Bay Railway, the construction of which we recently undertook in order to afford the grain grower a shorter and cheaper route for his products to the European market? In the opinion of many, the enormous expenditure which this enterprise entailed is quite unjustifiable, but both political parties agreed to it because the West was said to want it. It is perfectly obvious if this railroad is ever going to amount to anything at all, that it will require all the traffic that Western Canada can turn over to it. But the West cannot give the Hudson's Bay Railway any traffic if it is going to ship all its grain to the United States. Unless the road gets some business, it cannot even be maintained as a rate-reducing factor. Already we have spent millions upon it, and carried it far on the way to completion. Are we to abandon it, or are we to abandon free wheat?

Western Freight Rates.

CURIOUSLY enough, those who are most insistent for free wheat are the very people who are loudest in their demands for a reduction in freight rates. Within the past few months evidence has been submitted to the Board of Railway Commissioners to show that any material reduction in Western rates would be practically fatal to at least two of the systems operating in that territory, by reason of the large overhead expense and the meagreness of the traffic to be moved. Lower rates might reasonably be expected to come in time, as the volume of traffic increases, but the advocates of free wheat desire to secure their reduction from the companies whose business they propose to curtail. The substitution of a short haul to the boundary in place of the present long haul to Fort William would so impair the earnings of our railways that they would probably be forced to compensate themselves by the imposition of higher rates on merchandise moving from the East to the West.

Lien Laws in the West.

A BILL has been introduced in the Manitoba Legislature similar to that adopted in Alberta some time ago respecting sales of farm machinery. It provides that the conditions in lien contracts shall be valid only if the trial judge before whom they come considers them reasonable, and that any representations made by an agent or person conducting negotiations for sale shall be binding upon the vendor whether they are authorized or not. It would appear that this type of legislation must run its course in the Western Provinces before its absurdity is realized.

In a recent case in the city of Winnipeg it was found that goods supplied under a lien contract were subject to distress for taxes unpaid by the person in possession of the goods. Manufacturers selling goods under this form of contract should govern themselves accordingly.

Mixed Farming.

THE ultimate cure for many of the troubles from which the West is now suffering is mixed farming. The specialized form of farming there in vogue takes everything out of the soil and puts nothing back. Free wheat would tend to perpetuate this condition. On the other hand, if Western farmers would grow less wheat and raise more stock they would undoubtedly be better off, for the cash return from feeding grain and selling the product in a more advanced form is shown to be considerably higher than the return from selling the grain itself, in addition to which that return would be more or less continuous throughout the year.

From a transportation standpoint also mixed farming would be the salvation of the West. Given over as it is so largely to the production of wheat, it furnishes practically no traffic, except as a consumer, for nine months of the year. Into the other three months has to be crowded all the traffic for which as a producer it is responsible. This gives rise to a peak load that is high out of all proportion to the rest of Canada, and which, despite the best efforts of our railways, frequently leads to congestion and general dissatisfaction. Mixed farming would distribute the load more evenly throughout the year, and so assist in the correction of a grievance that is often very real.

Washington and Housing.

WASHINGTON, D.C., where tortuous alleys of vile huts existed for years almost within the shadows cast by the magnificent Capitol and the stately residences of the wealthy, has made great progress in solving the housing problem. The fact that one-third of the population is negro made the task especially difficult.

The first housing company was organized in 1897. It has always been solvent, paying 5 per cent. on the investment, which is now over $1,000,000. The company owns 574 houses, each containing two complete flats with separate entrances, exits, yards and cellars.

Each apartment is fitted with a heating stove, a kitchen range with hot water attachments, and a bathroom with porcelain tub and sanitary plumbing. The walls are whitewashed once a year and always before a new family moves in. The rents charged are:

	Per month.
Two rooms and bath on first floor.....	$7.50
Two rooms and bath on second floor.....	8.50
Three rooms and bath on first floor.....	8.50
Three rooms and bath on second floor.....	9.50
Four rooms and bath on first floor.....	10.00
Four rooms and bath on second floor.....	12.00

It was found, however, that the very poor were crowded out of these model and sanitary houses by an excellent class of thrifty workmen who desired to get better accommodation at a lower rent.

A second company, which limited its dividends to 4 per cent., was formed in 1904, to build better houses, each containing two flats of from three to five rooms and bath, which would rent at from $10 to $20 per month. Three hundred of these houses have been erected and filled with tenants. Many alley huts still survived, however, and the aid of Congress was invoked. A law was passed prohibiting the building of new houses in alleys and power was given officials to raze insanitary dwellings, 442 of which have been destroyed during the last five years.

The citizens of Washington are determined to maintain the struggle until the alley hut, around which filthy negroes squat in content and idleness, is only a bad memory.

President Wilson and the Panama Tolls.

PRESIDENT WILSON has shown his courage and honesty in his recent clearly defined statement against the exemption of United States coastwise shipping from Panama Canal tolls.

"It is," he says, "economically unjust; as a matter of fact, it benefits, for the present, at any rate, only a monopoly, and it seems to me in clear violation of the terms of the Hay-Pauncefote treaty."

The United States can subsidize their coast shipping without violating an international treaty. With the best minds in the country arrayed against the dishonorable Act, it is only a question of time until it is amended to agree with both the letter and spirit of the Hay-Pauncefote treaty.

Fire Prevention.

THERE seems to be some hesitation on the part of the Ontario Government to agree to a Fire Marshal Bill that will confer upon the officer to be appointed the right of entry upon any premises for the purpose of inspection.

Without such a provision the Act would be weak and ineffective. We want to do more than determine the cause and fix the responsibility after a fire has occurred; we want to prevent the fire from occurring at all. The theory that an Englishman's home is his castle is all very well in some ways, but no man would be allowed to turn his house into a glue factory if it were in a good residential district, so why should he be allowed to maintain it in such a way as to constitute a menace to the lives and property of his neighbors? In France and in Germany, the man upon whose premises a fire breaks out is looked upon as a public enemy; one whom the customs of this country would hold unfortunate but guiltless, may there be sent to jail. It may sound unduly severe, but it at least has the effect of keeping down the fire waste. The per capita fire waste of this country is ten times what it is in some European countries. That waste, whether occurring in warehouses, factories, retail stores or in residences, is paid for in insurance premiums by the people of this country. As a species of taxation it is becoming burdensome. The only way to alleviate that burden is to see to it that we have fewer fires, and the surest way to prevent fires is to provide for a form of inspection that will eliminate as far as possible the conditions upon which fires feed.

Shipbuilding in Canada.

"MY policy," said the Hon. J. D. Hazen recently in the House of Commons, "is to have all vessels possible built in Canada. In calling for tenders to-day we are insisting that vessels for the marine department must be built in this country. There is no protection for shipbuilding in Canada and the rate of wages is lower in Great Britain than in this country. Canadian shipbuilders are at a disadvantage. Two ships are being built for us at a Western Ontario shipbuilding plant, that of Collingwood, and tenders for ice-breakers, which have just been issued, have a clause that they must be built in Canada."

There are few industries more important than that of shipbuilding. In England it is the barometer of trade and is among the first to indicate depressions or revivals of business. Most of the great nations of history were proficient in the art of building ships, and if Canada is to reach a high state of commercial efficiency she should encourage this important industry.

Cost of Food Rising in United States.

SOME radical advocates of the Underwood Tariff prophesied that, when it became law, the cost of living would fall like a parachute.

Even the moderate adherents of the Underwood theories argued that lowering the tariff would reduce to some extent the burden of securing the necessities of life.

Is the Underwood Tariff producing this happy result?

Bulletin 138, which is just being issued by the United States Bureau of Labor Statistics, at Washington, dealing with fifteen staple articles of food, shows that, when the price of each of these articles of food is considered according to the average consumption in workingmen's families, retail prices were on a higher level on October 15th, 1913, than at any other time during the last twenty-three years. Retail prices of food on October 15th, 1913, were 70.9 per cent. above the average price for the ten-year period, 1890 to 1899; 7.9 per cent. above the price on October 15th, 1912, and 16.9 per cent. above the price on October 15th, 1911.

This bulletin is one of the Bureau's regular series on retail prices. It shows actual prices for September and October, 1913, and September and October, 1912, and also summarizes retail prices for the period from 1890 to October, 1913.

Comparing retail prices on October 15th, 1913, with prices on the same date in 1912, thirteen of the fifteen articles for which quotations are given advanced and two declined in price. Potatoes advanced 42.3 per cent.; eggs advanced 14.2 per cent.; round steak advanced 12.9 per cent.; ham advanced 10.6 per cent.; rib roast advanced 8.8 per cent.; sirloin steak advanced 8.3 per cent.; bacon advanced 8.2 per cent.; hens advanced 7.5 per cent.; pork chops advanced 6.3 per cent.; butter advanced 3.7 per cent.; milk advanced 2.7 per cent.; corn meal advanced 1.7 per cent., and lard advanced 1.0 per cent. Sugar declined 8.8 per cent., and flour declined 2.6 per cent.

As the Underwood Tariff went into effect on October 13th, 1913, it was operating only twelve days before the above statistics were taken; hence it would be unreasonable to expect marked results in so short a period. However, the passage of the Act was practically certain for months before it was finally approved; yet this certainty did not cause prices to be lowered.

The Eight-Hour-Day Bill.

THAT hardy annual, the Eight-Hour-Day Bill, has again made its appearance amid the crop of Ottawa legislation, but despite the protecting efforts of its sponsor, Mr. Verville, it has fallen a victim of a cruel frost in the shape of a House rule.

While the Labor member is to be admired for his perseverance, he can scarcely be congratulated on his good judgment. When everybody is complaining of the high cost of living, Mr. Verville would make it higher by knocking two hours off the day's work and paying the workman the same wages for eight hours as he is now getting for ten. But then Mr. Verville is, or was, a plumber, so what more could one expect!

Without in any way restricting the application of the Bill, he would declare it to include contracts for the erection and repair of all public works and buildings, such as post-offices, custom-houses, Intercolonial stations and freight sheds, wharves, canals and dredges; also contracts for militia and post-office uniforms, mounted police uniforms and saddlery, mailbags, rifles, printing, etc. Workmen engaged on such contracts, whether by a contractor or by a sub-contractor, would be neither required nor permitted to work more than eight hours in any one calendar day, yet they would not be paid less than the current per diem wages in the locality where the work was performed.

Note that word "permitted," and ask yourself how it fits in with your ideas of liberty and fair play! To die for one's country is generally esteemed to be noble, but Mr. Verville apparently wants to make sure that no one attains that kind of nobility through overwork.

Proposed World's Exposition for Montreal.

THE proposal to commemorate fifty years of Confederation by holding a World's Fair in Montreal in 1917 is coming in for some hard knocks from Montreal Branch of the C.M.A. A resolution of the Executive Committee, concurred in at a general meeting of the Branch held on February 12th, cites the refusal of various European nations to participate in the Panama Exposition at San Francisco as a sure indication that present thought is minimizing the importance of such expositions.

"It is a well-known fact," says the resolution, "that periods of stagnation in a city inevitably follow abnormal conditions brought about by an exposition. Thousands of workingmen are brought into a city by the lure of these abnormal conditions, and are not sufficiently informed of the after results, whereupon many families are stranded in a city upon the closing of the exposition, for whom

work cannot be provided. This occurred in Buffalo in 1901, and in Chicago in 1893.

"Similar conditions are brought about by inflation of prices of real estate.

"As applying to the city of Montreal the proposition is most unsound and ill-advised. Thousands of visitors who presumably would be drawn to such an exposition cannot be taken care of in any adequate manner. Again, the abnormal conditions brought about by the attempt to provide temporary quarters for the influx of people tend to create bad effects, all of which are lasting."

Not only Montreal, but every Canadian municipality, has to go to England so often with its hand out for money to finance permanent and necessary improvements, that it looks like bad business to run any chances of overstretching credit to finance an undertaking that is transitory and unnecessary, and that will only serve to line the pockets of a few at the expense of the many.

Practical Patriotism.

A REAL novelty in the way of advertising usually pays for itself in increased business. We hope our friends the Russell Motor Car Company will find that the rule applies in the case of the announcement which they recently spread across six columns, thirteen inches deep, in some of the daily papers. Whether they do or not, their line of attack possesses so much merit, in addition to that of novelty, that we feel justified in calling attention to it.

They start out by trying to impress the reader how much his own personal interests are advanced by the development in Canada of a manufacturing enterprise like theirs. They tell how much they pay out every year in salaries and wages, what they pay for materials purchased from other Canadian manufacturers, what these purchases mean in the way of wages paid to other employees, how many people are dependent upon the earnings of each employee, and so on until they figure it all out that their one industry supports at least 8,000 people. This is shown to be equivalent to an area of 400 acres populated at the average density of the city of Toronto. If their business could be doubled it would be equivalent to adding to the map another town larger than Collingwood, or Oshawa, or New Glasgow, or Medicine Hat, or any one of half a dozen other places.

Directly or indirectly, there probably isn't a corporation, a merchant, a newspaper, a real estate dealer, or a professional man in Canada who does not benefit in some way by the growth and extension of such an industry. Yet, right among the members of the C.M.A. itself, are men who may be seen driving an imported car to a meeting where the sale of "Made-in-Canada goods" is to be boosted.

"Consistency, thou art a jewel." Everybody who is producing or manufacturing in this country is willing to be helped by the "Made-in-Canada" slogan so far as selling his own goods is concerned, but how few, oh, how very few, allow it to influence them in their every-day buying! Trade statistics show that we sleep in imported beds, we shave and wash ourselves with imported soaps (and never happy till we get them), dress ourselves in Scotch woolens and United States boots, breakfast off cereals prepared in Michigan and bacon cured in Chicago, drive to the office in a foreign-made car, write our letters with a United States typewriter on English bond, go to a baseball match where the home team are practically all Yankees, tickle our dinner appetite with Worcester sauce, French peas, Spanish wine and Swiss cheese, and after lighting a Havana cigar settle down to a quiet evening's reading from a New York magazine!

Mr. Russell is right. Before sending your money out of the country for anything, you owe it to those who are building up Canada to see if there isn't something made here that will suit your purpose equally or nearly as well.

Hamilton Council and Wages.

IN spite of the protests of local business men, the City Council of Hamilton, Ontario, has raised the pay of the city laborers to 25c. per hour. This was done regardless of the fact that many men are out of employment and willing to work for very low wages. During this winter the manufacturers of the city were urged to lower wages or to reduce hours as alternatives to laying men off. It seems reasonable that the same arguments should have appealed to the municipal government. The extra pay given to the present staff might have been used to afford destitute men the opportunity of a few hours' work daily.

One result of the ill-timed liberality of the Council will be that Hamilton manufacturers who have kept their employees through the dull season, will be asked to increase wages by this argument: "If unskilled city laborers get 25c. per hour, we should get —."

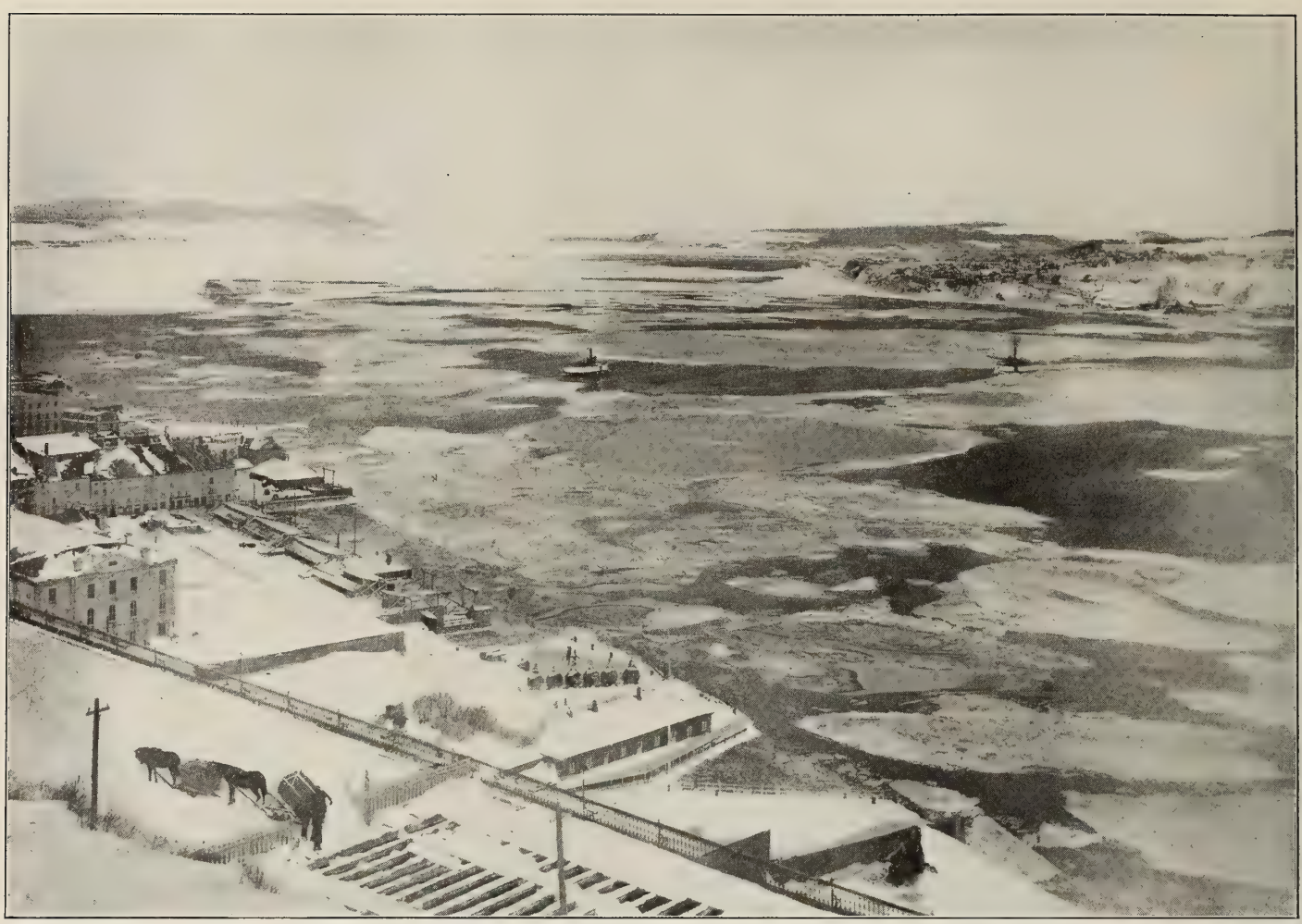
Grain Growers and Gasoline.

WITH uplifted spirits we notice the following items in the financial statement of the Saskatchewan Grain Growers' Association: "Automobile, $713.65," "Automobile repairs, $19.20," "Automobile license, $10." As the expenses of the Association in 1913 amounted to $7,381.02, these automobile items constitute about ten per cent. of the total.

Hitherto we have been led to believe by the Grain Growers' journals that only "plutocrats" or "tariff barons" went in for automobiles. The impression left was that the automobile experience of grain growers was limited to inhaling gasoline.

But what are we to think when we find that even the officials of the Grain Growers can spend ten per cent. of the Associations revenue on automobiling? Far different is the lot of these happy employees from that of the members of the staff of the Canadian Manufacturers' Association, whose limousines are the humble street cars.

The Grain Growers are to be congratulated upon their prosperity, which spills over so pleasantly for their employees.



Showing the River St. Lawrence Opposite Quebec with Ferry Steamers Crossing. The Conditions Show the Jam of Ice Owing to the River at Cap Rouge not Having Been Frozen Over.

WINTER NAVIGATION ON THE ST. LAWRENCE

By E. T. NESBITT

WINTER navigation and the question of keeping the St. Lawrence open during the winter by means of powerful ice-breakers are questions that are as broad as the St. Lawrence itself. There are four distinct conditions to be considered in as many different localities, such as the "180 miles of ice" in the Atlantic, the movements of ice in the gulf, and the conditions in the river from the gulf to Quebec and again from Quebec to Montreal; these are so totally different that they require long experience to discuss. In fact, it is hard to find any one man capable of grasping the whole situation, so varied are the conditions; what would be a good course to pursue in overcoming the difficulty at one stage would be the very cause of making it more difficult at the other.

In considering the problem of keeping the channel open between Quebec and Montreal (if it were possible), we must remember that ice is continually forming on that 170 miles of river and floating down towards the Gulf for four and a half months, with the current practically continuous in that direction. The river must of necessity be covered with floating ice, fresh-water ice, hard as flint and growing in area and thickness every moment. These ice fields eventually completely cover the lower river and greater part of the gulf. When, under the influence of the sun and warm water from the west in spring, ice ceases to form in the upper river and the ice-breakers' mission is accomplished, we would find that, although the river is clear, this very clearing has covered the gulf to such an extent as to retard the entrance of ships into it; therefore, the very object which the breakers have striven to accomplish has been defeated.

A Suggested Remedy.

On the other hand, if the ice were to form early, by allowing the bridge to gather at Cap Rouge, the narrowest point of the St. Lawrence, immediately above the port of Quebec, thereby assuring the formation of an ice bridge over the whole of the river from that point to Montreal, there would be so much less ice floating towards the gulf. What would be the result? Assuming that the ice forming from Quebec to Montreal were half a mile wide—eighty-five square miles of ice—passing out to the gulf, say one-half of it every tide at two tides per twenty-four hours, for 120 days would cause 10,200 square miles of the surface of the gulf to be covered by spring. This vast area of ice would be added to by natural increase and by the ice of the lower St. Lawrence from Quebec.

To overcome this, I would advocate that not only should the ice be allowed to form in the river above Quebec, but that a study should be made of the possibility of helping it to

form as soon as the last ship has passed out in the fall. As the channel at Cap Rouge is very narrow, piers could be built or contrivances could be devised, so that when the ice ceased forming in spring, about March 25th, the powerful ice-breakers would accomplish in from ten days to two weeks what, under the other conditions, would take them four and a half months.

I advance the theory that, allowing or even helping the ice to form on the river above Quebec as early as possible, would avoid the terrible ice jams that occur at Cap Rouge; because when an easterly gale occurs the ice is held back at this narrow point, and the great weight of that behind chokes the gorge. The fragments work their way underneath until they form a solid wall or barrier to the bottom which can be removed only by melting. Should such a gale occur when the ice-breakers were west of Cap Rouge they could not get through. Guncotton could not break this barrier when it was tried by the garrison at Quebec on several occasions without success; the ice-breakers would be at the mercy of the ice with only one result.

Results of Early Formation.

The ice, by being allowed to form as early as possible, would create a sheet all the way to Montreal, and it is well known that ice so forming hardly ever gets thicker than thirty inches. Consequently the great jam at Cap Rouge, which has always been the reason for the lateness of the opening of the river in the spring would be avoided. In support of my theory, it is worthy of notice that, when the ice bridge has not formed above Quebec, the river from Quebec downwards is completely covered with a thin sheet of ice all winter.

By following the reports from signal stations along the river as to movements of ice a difference is noted as soon as the Cap Rouge bridge has formed.

Winter Navigation.

As to the feasibility of the navigation of the St. Lawrence during winter, there can be no question in anybody's mind about its impossibility above Quebec. What use would it be to keep that part of the river open if the gulf would be so choked with ice by this very effort that ships could not enter?

The opening of the river earlier in the spring can be accomplished, and winter navigation from Quebec to the sea can be benefited, by holding back the heavy floating ice that forms above Quebec and covers the river eastward from that point.

Quebec to Tadoussac.

Let us now consider the problem of ice-breaking from Quebec to Tadoussac or Red Island. This part of the river would be considerably improved by the ice forming above Quebec being held back. A ship would only have to contend with the newly formed sheet ice moving out every tide, which would not have time to get thick enough to impede materially the progress of a steamer.



MR. E. T. NESBITT
Chairman, Quebec Branch, C.M.A.

How about snowfalls and snowdrift and the short days of December and January? The steamers that have already gone down and up the river below Quebec in winter have always left Quebec at break of day after waiting day after day for a promising time to leave in order to get below the St. Roch Traverse and, if possible, below Red Island by daylight.

If, unfortunately, a snowstorm or drifting snow off the floating ice were to spring up and a navigator were not able to keep his landmarks in sight in that part of the river it would be fatal; to anchor is out of the question—no anchor, chain or ship, has yet been devised that could withstand the strain of ice moving with the wind and tide.



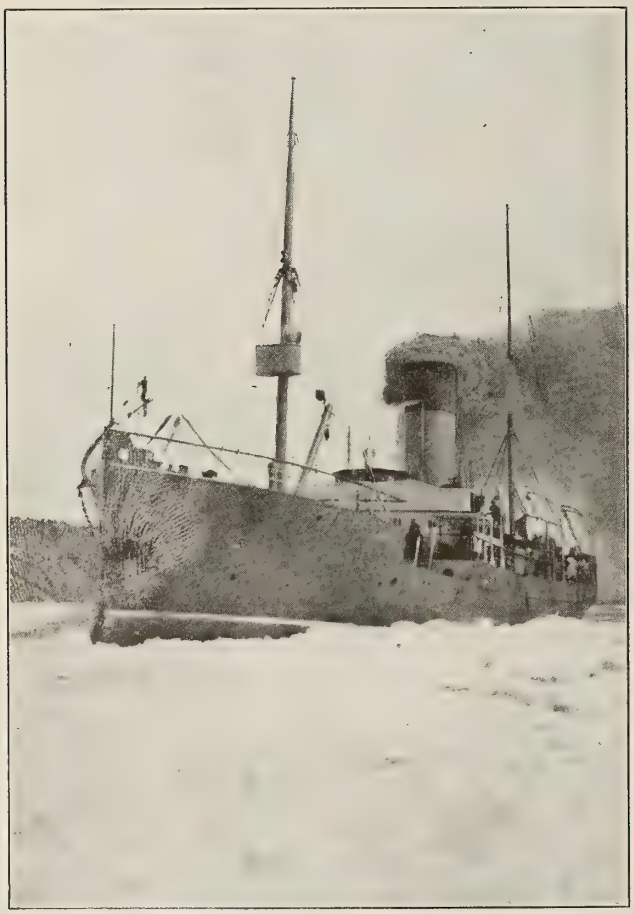
Government Ice-breaker "Montcalm" on the Broad St. Lawrence.

All I have said in the foregoing remarks goes to show that a ship's chances are very much improved when the Quebec-Montreal end of the river is frozen over.

To Cape Ray.

Now for the gulf as far as Cape Ray or Cabot Strait between Cape Ray and Cape Breton.

My experience has been that navigation of the gulf is perfectly free and open until about the tenth of January; after that date floating ice fields appear and increase in size with the advance of winter; near spring the gulf reaches its



Government Steamer "Montcalm" Ramming an Ice-field

worst condition, and the rivers in the west disgorge ice, which comes down, impelled by the influence of the sun and warm water, and forms the great ice fields. These are blown about with the winds and fill the gulf from Anticosti to Cape Breton Island. If north-easterly winds prevail very long at that season, the ice is retarded from making its way to the ocean through that comparatively narrow strait between Cape Ray and Cape Breton, so that when our river is clear the entrance to the gulf is jammed. The reverse condition obtains in the fall, so that navigation is open in the gulf six weeks later than in the river; while navigation could be opened in the river three or four weeks earlier in the spring than in the gulf.

The fourth consideration is the entrance to the gulf.

Some years ago a steamer was put on between Paspebiac and London to run in winter. The late J. U. Gregory, Agent of Marine and Fisheries Department in Quebec—than whom no man knew more about ice conditions in the gulf—asked me if I thought she would succeed. My answer was that she would get out of the gulf easily on her December trip and on her January trip if she would steer north on leaving Paspebiac and hug Anticosti coast and steer that course to Cape Ray, but I was sure she would not get back on her return trip in February. The ship steered a straight course out across the gulf and *she wintered in the ice.* A Government steamer from Pictou had to go to her assistance with provisions, and she drifted for months at the mercy of the ice.

An Investigation Needed.

I hope that the reading of this article will start a movement to investigate ice conditions in the St. Lawrence by competent men.

I am sure a steamer could run between Murray Bay and the lower north shore ports all winter, provided no importance would be attached to the fact that schedule time would not be kept up. Although the north shore is comparatively clear during winter, the prevailing winds being west to north, yet the occasional easterly gales do block up that shore for several days at a time, during which navigation is impossible.

The navigator should have a free hand in being allowed to go and come as conditions permitted; after early March con-



Winter Ferry Steamer "Pilot" Crossing the River St. Lawrence Opposite Quebec, the River being Covered with Ice Owing to Ice-breakers Keeping the River Open at Cap Rouge

ditions would improve quickly. Ice conditions in the lower river are greatly controlled by the current as well as the wind, and, as the prevailing winds are mostly northerly, and as the current is outwards, the tendency is towards the south shore. Thus the current sets from Point des Monts over towards the Gaspé coast about Cape Chat; therefore, the north shore is never so congested with ice as the south shore, and a vessel has a better chance to go up and down that part of the river in winter by keeping to that coast.

TO ENLARGE THE DRYDOCK.

The plans for the drydock at Courtenay Bay, N.B., provide for a dock only 900 feet in length. The Board of Trade of St. John is now taking up with the Government the question of increasing the length to 1,150 feet, so that this dock would be as large as any to be constructed in Canada during the next few years. Norton Griffiths & Company are also suggesting that the wharves which they are to construct at Courtenay Bay be built of concrete, and this matter is being taken up with the Government at Ottawa. Mr. Norton Griffiths has assured the Board of Trade that his whole contract, including the dredging of Courtenay Bay, the wharves, the breakwater and drydock, will be completed well within the contract time, and to this end the Norton Griffiths Company has taken over all the work from the sub-contractors, and will itself make provision for speeding up the work of construction on the whole contract.

THE LAW OF INDUSTRIAL INTERDEPENDENCE

By BRITTON COOKE

A Blow to One Canadian Industry Shakes the Entire Fabric. The Strength of One is the Strength of All

A BANKER went temporarily blind because his liver faltered. A hockey team lost a championship because the cover-point broke in training. A bridge collapsed because three "struts" were too light. A general merchant in Saskatchewan failed because of the Balkan War, and his failure was felt by the wholesalers and manufacturers all through the East. This is an age of inter-relations, not only in social and political matters, but in every detail of trade and industry. The world is no longer an orange peppered with individuals, but a ball covered with a fabric of interwoven economic connections. Touch one, and the vibration is felt by all of them. Injure one, and all react. "I mind my own business" is the boast only of potential bankrupts; wise men mind everybody's business lest they neglect their own. Interdependence is at once the triumph and the penalty of civilization.

The New Economy.

One of the significant items in the everyday life of this country is a freight terminus in Toronto, a reservoir of box-cars. Laboring engines are continually dragging strings of cars away and setting off with them to distant parts. But other engines bring other cars, and the reservoir overflows. Ten years ago the yard was smaller. Forty years ago it was not there. The Dominion of Canada was then only an aggregation of communities more or less self-contained; each village had its own carriage-maker; each blacksmith made his own horse-shoes; each community ground its own flour; there was no need for box cars. To-day there are fewer workshops, but more factories. The carriage-maker does only repairs, and has an agency for better buggies than ever he made. The blacksmith buys shoes from a manufacturer who buys his metal from a foundry, which gets its "pigs" from somebody else. The flour mill chops feed, and prices are made no longer by conditions in the county, but by world conditions. The self-contained community is gone, and the busy freight terminals are monuments to its memory. With improved transportation have come greater population, centralization and organization of industry. With increase in the variety of demands has come specialization; with specialization have come the dependence of one industry on another for supplies, and the other industry on the one for custom. Five or six are involved in the success of one. Canada is no longer a series of communities, but a nation, a tight-knit, economic fabric within its tariff zone.

Interdependence of Manufacturing.

The importance of studying the relation of one business interest to another increases as the country grows and as new enterprises spring up. One of the turning points in the history of Canada was when, through the forming of the Canadian Manufacturers Association, the manufacturing interests of Canada acknowledged their interdependence and took steps to make a degree of co-operation possible between them.

There are many examples of this interdependence. After the Albany trade treaty went into effect, following negotiations between Taft and Fielding, a section of the leather trade was so seriously affected that some lines of leather could no longer be made in Canada. The American leather interests were able to force prices down, squeeze out the Canadian producer and control the market for themselves. While the leather trade was not among the most vital in the country, yet the whole community of manufacturers felt in greater or less degree the effects. Workmen were thrown out of employment and withdrawn from the purchasing strength of the home market. Many were attracted to the American field. The wages that would have been paid in Canada and spent in Canada were exported to be paid in the United States and spent in the United States—a double loss to Canada. The industries that contributed machinery and raw materials to the leather-maker lost that much custom, which in turn reacted, though perhaps not seriously, upon other industries which contributed to their support.

The Case of Agricultural Implements.

A professor of note was asked why he had spoken against any proposed further reduction of duty on agricultural implements entering Canada. He was famous for his hostility to high protection, and his leaning toward the theory, if not the practice, of free trade.

"Yet you oppose the lowering of the tariff on implements?" his questioner insisted.

"I do," replied the professor, "because, even though a theoretical Free Trader, I have some respect for the interests of the country at large. If Canada is to adopt free trade, well and good; but it must be done by design, deliberately and with care. But to hew down a part of the tariff without respect to the other parts, and to precipitate a general tariff reduction by upsetting one part of it, is worse than folly. The agricultural implement trade is one of the fifteen largest producers in the country. It produces more than any other industry except the other most vital ones. It is one of the four Canadian industries that pay the highest average wages. It is one of the eight largest pay-masters among Canadian manufactories. There are something like 75 or 76 separate concerns, and by the blue-books I see that they pay out close to five millions a year in wages, maintaining directly a population of about forty-five thousand souls. But that is not why I oppose reducing the protection on implements."

"Why, then?"

"Because reducing implement duty is only preliminary to automatically reducing other duties. The farmer is the constant protester, and to satisfy him there has to be—a goat. Satisfy him on the implement question and he'll turn then to other branches of the tariff. Then, too, if the implement maker is to lose his protection, the protection on his raw materials must be lifted. This principle has been acknowledged at Ottawa, notably in the case of cream separators. Reduce the duty on implements and the Government by the same stroke of the pen must reduce a long list of materials used by the implement maker. Probably no important class of manufacture uses the same variety of supplies. Ottawa would have to cut the duty on iron and steel, on cotton duck, on sheet iron, on paint, on bolts, nuts and rivets, on brass, on bits and tools, on machinery—which now has a 27½ per cent protection—on grindstones, on oil for fuel and for lubrication, on belting, on leather straps, on benzine, on white lead, on drills, and so on. Tariff tinkering which aims to satisfy the farmer by making the implement man the goat is dangerous. My father was a farmer, and all farmers hate implement men! I have no love for them, but good sense is good sense. If we are to have free trade, let it be introduced scientifically, not by a general demoralizing of the tariff."

Far-Reaching Effects.

The interdependence of industry is demonstrated in even other phases of the agricultural implement situation. This industry is one of that group in Canada having an export trade. Obviously industries commanding an export market and those which supply only the home market bear an important relation to one another. Obviously, too, in a period of depression at home the export trade does much to maintain the domestic *status quo*. Canada sold about as many implements abroad last year as she sold at home. The exporting implement men kept their factories working when other factories and even implement concerns that had no export trade were running on half time or closed down. One factory maintained its staff of 3,500 men in spite of depressions. This was no inconsiderable benefit. Had those 3,500 men been thrown out of employment, had they been withdrawn from the purchasing strength of the home market, the scores of other industries interested in the Canadian home market must have felt the effects.

Buys at Home.

Not only does this implement trade keep up the purchasing strength of the home market through its wage roll, but it is itself a gigantic consumer. A factory owner declared recently: "If the implement men shut down I would have to suspend operations indefinitely." As it happened he was a dealer in a certain form of iron. In a time of industrial depression, his few big customers able to weather the blow were implement concerns. Had they closed down or had they been compelled by tariff considerations to buy in the United States, he would have closed. Had he closed, his men would have been idle—withdrawn from the purchasing strength of the home market. Just where the reaction would finally have ended is difficult to guess.

Not all industries are pivotal industries and not all pivotal industries have the added importance of being "importers of money"—export houses. The failure of a carriage works would have proportionately ill effect. Even the closing down of a toothpick factory is bound to be recorded in the ledgers of the industrial community, though the entry may have a disguise. A tariff is not a matter only of manufacturer and consumer; it concerns manufacturer and manufacturer. Because Smith, who makes linseed oil, feels that the tariff treats him well enough, does not mean that Smith has no interest in the tariff, because if—to take the case of the implement maker again—the protection to that industry is reduced say another 2½ per cent., then ten or twelve thousand gallons of linseed oil, which a fair sized implement factory uses in a year, must be available on better terms, as the Government is certain to observe.

Importing Steel and Iron.

To-day certain forms of iron and steel—certain sizes, shapes, angles and qualities—cannot be bought in Canada because the total demand does not warrant the founders installing the necessary machinery. These forms have to be imported. But with the growth of the demand in Canada these forms must eventually be made here. Consequently, the leaders in the manufacturing community, even in its capacity as consumer, lean toward the belief that the things which strengthen those industries that now have to import these special forms of steel, will hasten the day when these forms can be made in Canada.

The whole fabric of Canadian industrial life is sensitive to the slightest change in conditions affecting any one part of it. A fellow manufacturer is a possible big customer. At least he is a customer of your customers and indirectly stimulates or depresses your own trade. He is a supporter of the home market; his employees, directly or indirectly, buy your goods. If his be, like the implement manufacturer's, a "pivotal" industry and an exporting industry, the relationship between your business and his is still more important. He affects many of your customers, not just one. He concerns the very money supply itself.

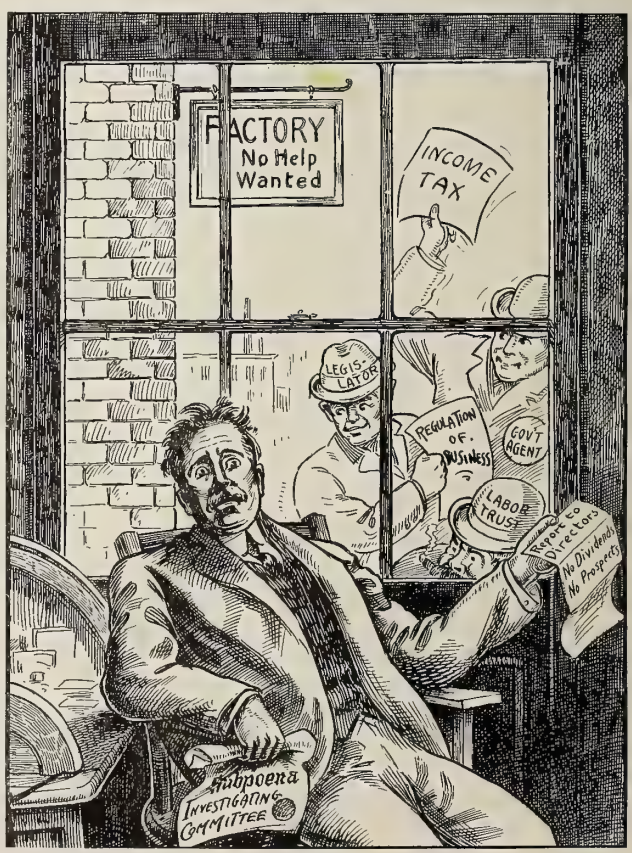
The working together of the two hundred and eleven different classes of industries in Canada is one of the absorbing phenomena to be observed in a land of spectacular things. The development of the wheat areas, the exploiting of timber, fish and mineral wealth—these are spectacles. But the plainer, less strenuous, but not less effective work of the "captains of industry" is even more romantic. Each part plays to some other part, each has its relationship and counter-relationship. Not one industry in Canada that prospers but ten prosper with it. Not one is injured but twenty are hurt. There is no sentiment about it; it is the law of inter-relation, interdependence.

GETTING EXPORT TRADE.

In discussing how to build up export trade, Mr. Charles E. Jennings, President of the American Manufacturers' Export Association, says:

"For the past thirty years I have made a careful study of export trade, visiting Great Britain, France, Germany, Holland, Sweden, Denmark, Italy and Russia; also some of the more important Spanish-speaking countries; and my experience has been if we want to build up *export* trade—GO AFTER IT. We cannot get it by sitting supinely on our backs hugging the delusive phantom of Hope, thinking that something will turn up.

"If we have faint-hearted salesmen, keep them home and send to the front the brightest, keenest, most alert and best-equipped men that we have in our employ, and see to it that they have a thorough knowledge of the products they have been sent to introduce."



The Employer's Trouble
—*American Industries.*

CONSERVATION OF FORESTS AND REFORESTATION OF WASTE LANDS

By EMELYN L. MACKENZIE *

THE economists of the present day continually bewail the fact that the world's civilization is doomed to come to a standstill because the population is increasing at a rate which is far beyond the rate at which the world's supply of food can possibly increase. In fact, world over, it is the generally accepted opinion that on foodstuffs alone depends man's progress. But there are few commercial articles more necessary to the development of society than timber. Our railways, steamboats, carriages, vehicles, agricultural implements, newspapers, books, and even our homes are dependent upon the forest supply.

In view of this necessity, it behooves Canada and Canadians to investigate the timber problem of their country with a view to provide for the later day when men less fortunate than we can no longer obtain this commodity.

Five Classes of Land.

Canada is divided into five distinct classes of land, according to their timber cover. These are: (1) Barren lands. This includes an area of six hundred thousand square miles of the northern part of Canada, where it is too cold to permit the growth of trees. (2) Semi-treeless lands. South of the Barren Lands lies an area of seven hundred thousand square miles which is sparsely wooded. In this country forests are only found along the waterways, where they form a covering for the soil and a home for wild animals. (3) Inland lakes and area above timber line—about three hundred thousand square miles. (4) Prairie land. Semi-annual or annual fires have caused it, that two hundred thousand square miles are treeless. (5) Forests.



Future Fir Forest Beneath Paper Birch

Practically all the rest of Canada was covered with timber when the first settlers arrived at Quebec in 1608. From the Maritime Provinces westward was a magnificent stand of white pine, broken only in the southern parts of Ontario and Quebec by stands of hardwoods—the only hardwoods Canada possessed. From Nova Scotia west and northward to the Yukon stretched the spruce belt. This covered an area of 1,900,000 square miles, and, with a low estimate of three thousand square feet per acre, contained 3,648 billion feet of good saw timber. This was the home of the fur traders, and Sir Alexander Mackenzie, in his journey from Montreal to the mouth of the Mackenzie River, notes only thirteen fires. Now one could hardly lose sight of the vast burnt areas on this route.

How It Has Diminished

In 1909 there were approximately ninety-two thousand square miles of this forest land cleared for settlement. Lumber men have cut the timber on approximately one hundred thousand square miles. This leaves 1,702,000 square miles, which should yield 3,279 billion feet. On the contrary, the highest estimates are 1,094 billion feet. This gives a total loss of 2,185 billion feet, which is 437 times as much as the annual cut in Canada and forty-nine times the yearly cut in North America. The loss to the treasury is $1,042,500,000, and it is estimated that for every foot of timber cut by lumbermen in Canada twenty feet have been destroyed.

Canada has no timber to spare. When other nations came to the point where domestic timbers could not meet the demand, the development of transportation and the discovery

* "Industrial Canada" prize-winner, Dalhousie College, Halifax.

of virgin forests, before inaccessible, enabled them to import timber in as large quantities as necessary. It is safe to say that all areas of useful timber existing in the world are now being exploited.

The only countries now exporting timber in quantity are Sweden, Norway, Russia, Austria, the United States, and Canada, and of these all or nearly all, with the exception of Canada and Russia, are cutting in excess of the annual growth.



Swept by the Fire

The widespread deforestation of Canada is due to fires more than to any other agency, and this deforestation is destroying timber which will be needed in the development and commerce of the country, is creating barren wastes of large areas, is encouraging the growth and increasing the percentage of valueless trees in the forest, and is decreasing the value of streams and rivers for all purposes—notably irrigation, water power and navigation.

Our Need of Good Timber.

Canada's timber product may be divided into several classes, most important of which are ties, poles, industrial woods, lumber and pulpwood.

The wood industries of Canada are as yet in their infancy. They may be divided into two classes: (1) Furniture and car manufactures; (2) agricultural implements, vehicles and veneers.

Furniture and cars are manufactured in Ontario, Quebec, Nova Scotia and Prince Edward Island. Much of the timber used is imported. In 1910, over one-third was imported, chiefly from the United States.

Nothing could more clearly show the general inferiority of the common Canadian woods for use in manufactures than the fact that Canadian manufacturers are forced to buy fully more than one-third of their supply from a foreign market at a price exceeding, by sixty per cent., that paid in the home market. It is impossible to secure in Canada, in sufficient quantities. woods which combine beauty with strength, so as to be suitable for furnishing high-grade furniture and passenger cars, or which are strong enough for car frames and sidings.

Native Woods Used.

Maple is the most important native wood used for furniture and cars. It also is used for cheap furniture, beds, chairs, turned work, trolley and freight-car frames, and is stained to imitate quarter-cut oak. Other trees used are yellow birch, spruce, basswood, elm, ash, beech, and Douglas fir. Douglas fir is a splendid wood for car-building, for which use the greater part of twenty-one million feet of pine, imported in 1910, was used. Imported woods were chestnut, tulip, gum, mahogany, cherry, walnut and teak.

Ontario leads in this kind of manufacturing. Nova Scotia produces one-sixth of the total manufactured. About eight-ninths of the vehicle and implement manufacturing of Canada is carried on in Ontario, one-third the lumber for it being imported.

Quebec is the premier pulpwood Province, because of its extensive spruce and balsam fir forests, suitable for wood pulps, abundant and cheap water-power, and plentiful supply of labor.

Of the twenty-six native woods cut in 1910, the first nine in importance were coniferous or soft woods. Spruce is the most important timber tree in Canada, constituting over one-quarter of the total cut.

There were only two species of which Canada cut a larger quantity in 1910 than did the United States in 1909. These were cedar and balsam fir. In other important timbers, the cut in the United States was many times that in Canada. Although Canada is the "Land of the Maple," seventeen times as much maple is cut in the United States.

The value of hardwoods imported into Canada in 1910 exceeded by fifty per cent. the value of the hardwoods manufactured into lumber in Canada that year. Nearly all these imports were from the United States, for Canada is dependent on that country for her supply of valuable hardwoods. Can-



Early Stages of Re-forestation

ada is becoming yearly more and more dependent upon the United States, whose available supply for export is surely and rapidly disappearing. It is evident that whatever can be done to improve the hardwood resources of Canada should be done with all possible speed.

How Manufacturers Are Affected.

It has been stated that Canadian manufacturers are now using inferior woods or are importing their timber at high cost. This places them at such a disadvantage that it is with difficulty they compete with the manufacturers of the United States. The timber imported is coming from a comparatively small area, which is subject to the demand of the whole of the United States. It is estimated that, at the present rate of cutting, the supply of valuable hard woods will last only a few years. As the supply of hardwoods is reduced in the United States, the grade used by Canadian manufacturers must be lowered and the price greatly increased, unless steps are taken to produce in Canada the hardwoods used for manufacturing purposes.



Portable Mill, Primrose Brothers, Colchester, U.S.

Canada and the United States are practically the only important countries dependent altogether upon the natural forest for their supply of high-grade timber for manufacturing and industrial purposes. Even in the United States, manufacturers and other large users are preparing to produce their own timber supplies — over forty users of timber in that country having during the last few years adopted the policy of growing timber for their requirements. If Canadian manufacturers are to be assured of a perpetual supply of timber, if Canada is to keep pace with the other nations in the wise use of land, private individuals, corporations and Government must undertake the planting and management of waste lands for the production of valuable timber. Trees which would produce profits above all cost of production and management, and which would succeed on land now lying idle in the manufacturing districts of Canada, are white pine, oak, basswood, elm, ash, walnut, hickory and tulip.



Flume and Water Power, Rhodes Curry Mill, Sheet Harbor.

The implement manufacturers of Manitoba in 1910 paid $67.00 per thousand feet for white oak that they imported from the United States. White oak is native in Manitoba and reaches large size in the Turtle Mountain Reserve. This reserve has been burnt over, but it is now being properly put under scientific management. When properly stocked, this reserve will produce six million feet of white oak timber per year. The local production of this timber will be of great assistance to the industries of Manitoba. This is an instance of what can be done by the proper management of waste lands.

The Dominion Government Forestry Branch will furnish free advice to manufacturers or others who are interested in investigating the question of planting and managing wood-lands for the production of timber. No mill slabs or other waste products were reported as being utilized in the manufacture of wood-pulp in 1910. This is an opportunity for economy that Canada loses greatly by neglecting. It has been conservatively estimated that, if all useful logs left in the bush by lumbermen, large-sized branches, slab and other mill wastes from the lumber industries of Canada had been conserved into pulp in 1910, the annual output would have been increased and not a single acre need have been cut over for logs to make pulpwood. During 1909, in the United States, six per cent. of the total pulpwood consumption was of slabs and mill waste. If economy had been practised in Canada to the same extent during 1910, as much pulp might have been produced without cutting a single log as is manufactured from thirty-six thousand cords of pulpwood. This is considerably more pulp than Nova Scotia produced in 1910. The sooner such practical economy is put into use, the longer will Canada have an adequate supply of pulpwood.

Over sixty per cent. of the pulpwood cut in Canada in 1911 was sent out of the country without further labor being

expended on it. The United States manufactured it into pulpwood and paper, and 23,042 cords less were manufactured in 1910 than in 1909 in Canada. Thus Canada is



Result of Repeated Fires in Crowsnest Valley, Alberta

increasing the proportion of her natural resources exported in the raw state. Canada received $6,210,042 for the pulpwood exported to the United States. At the average price, the value of the wood-pulp made from this was $13,328,481. Thus Canada did not receive half the amount she would have received if all the pulpwood were converted into pulp in Canada. The United States does not export two per cent. of the amount imported, so the market would not be lacking.

If the pulpwood had been converted on Canadian soil, it would have supplied eighty mills. Thus it would have employed labor and advanced the number of mills at work, had Canadians been far-seeing enough to manufacture their own raw products.

Preventive Measures.

Up to 1911, no forest products had received protection against decay. When no preservatives are used on the part in contact with the soil, moisture is drawn in, fungus growth is supported, and the wood is useless in a short term of years. This unnecessary waste may be done away with and the cost per annum decreased by the use of certain preservatives.

In 1911, 206,209 ties received preservative treatment. This was 1.5 per cent. of the total. Two plants were completed in that year and are now treating ties for the larger railway companies.

The average life of an untreated tie is seven years. When treated, its life is extended to seventeen years.

Cedar poles in 1911 formed over ninety per cent. of the whole purchased in Canada and British Columbia. They are now imported in fairly large quantities from the United States.

The average cedar pole is cut from a tree about 190 years old, and, if put in place untreated, it will decay and become useless in fourteen years. It is, therefore, evident that the supply of cedar poles is doomed to a speedy destruction.

Preservative treatment would be of particular benefit to the lodgepole pine of the West. Untreated it lasts five years, and treated it lasts twenty. Large quantities of this wood have been killed by fires, and the dead trees are still standing. They are well seasoned, and could be effectively treated. Their use would be a great saving to the pole users of the prairies, and it is an opportunity for economy that should not be overlooked by the consumers.

This method of treatment, by prolonging the life of various forest products, will aid in conserving the natural forests because it decreases the annual demand upon them.



Burned Area the Result of a Fire on Lake Manitoba West Reserve

Indifference One of the Causes.

Canadian people, as a whole, do not show the interest in conserving the forests that the forests merit. Our people must be educated to see that our forests are not inexhaustible, as was formerly supposed. Our school systems are partially responsible for this opinion, the text-books used going so far as to say: "We produce in vast quantities all the varieties of wood used in the building of houses, railroads, ships, and bridges, as well as those needed for carriage-building, tool-handles, carving, furniture, and decorative work, while the very desks and seats in that school-room are labelled "Best Michigan Hard Maple."



Cutting Completely Destroyed by Fire, Cobalt District, Ontario

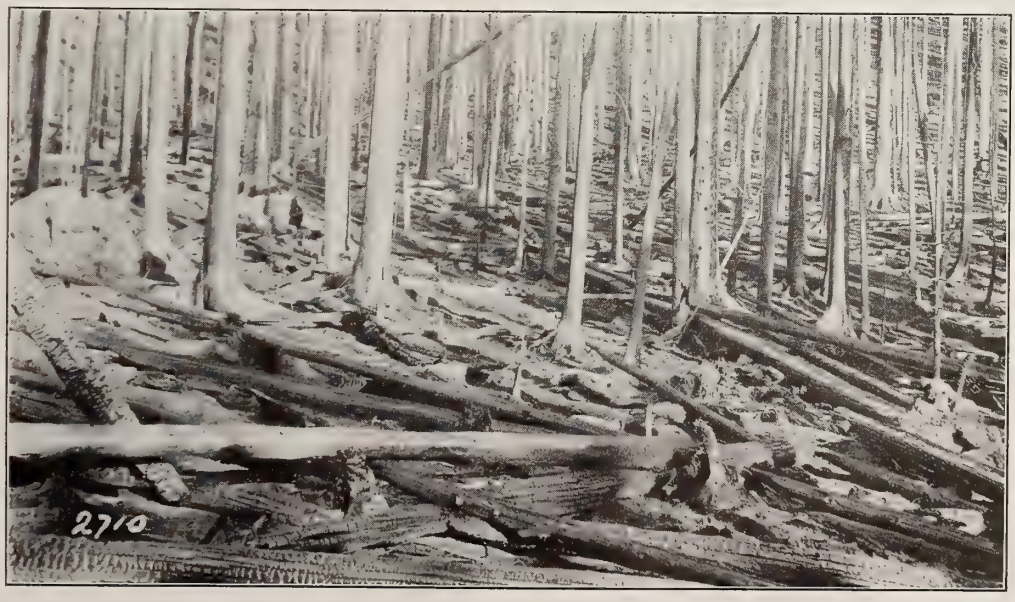
Our people should be educated to look upon our timber lands as one of the nation's greatest assets and to value them accordingly.

Not only do our people need to be educated to value and protect our forests; they also need to be taught the proper way to conduct their lumbering operations. Very few lumbermen are directly responsible for fires, but the slash left by the operators causes great fire danger, as well as retards the growth of seedlings. A very small percentage of the timber lands cut by lumbermen is settled, and the rest is fit only for forest growth. Consequently, after logging, it should be left in the best possible condition for another crop of timber. Usually the ground is left covered with a tangled mass of tops, broken timber, culled logs, and underbrush; this when it has dried is as inflammable as so much tinder.

The New Brunswick Government requires all tops to be lopped. When lopped close to the ground, they soon decay. This enriches the soil, reduces the fire danger, and is inexpensive.

It takes longer than the average lifetime of a man to produce a timber tree of the most rapidly growing species; hence, if reforestation is to be begun, it needs must be accomplished with all possible speed. It is scarcely probable that the average man will consider an investment that is so long in realizing any profit, but the lifetime of a tree is negligible in the lifetime of a nation. Consequently, planting trees should be at the nation's expense. A small export tax on lumber would pay the expenses incurred. If the Government, either of the Dominion or of the Provinces, would establish reserves throughout the Eastern Provinces, similar to those on the Dominion lands of the West, they would be of great use in educating the surrounding farmers. Some of the large tracts of Canada which are unfit for cultivation might be profitably put to this use.

A Provincial Forester should be established, whose duty it would be to act as public adviser and instructor. A few years of determined effort by an educational campaign should reduce the destruction of forests to a rare accident. The Government, too, should compel the owners of woodland to plant the cut-over districts, if natural reforestation failed to appear.



After a Forest Fire in Alberta

MAPLE PRODUCTS.

Sugar and Syrup.

In the days of crude sugar bush methods there was little opportunity of learning the difference between the inferior dark products and those of fine quality, but now consumers are learning to appreciate the excellence of superior goods and to accept no other so long as these are available. This appreciation is leading to better returns for those who produce the light color, fine flavored sugar and syrup.

The up-to-date maple sugar maker recognizes that sap, like milk, is a very perishable product, being an excellent medium for the development of fermentative organisms. To make a fine sugar or syrup it is necessary, therefore, for the maker to have an equipment which will allow for the least possible contamination of the products in all stages of manufacture. Not only must thorough cleanliness be observed but transformation of the sap to the finished product must be direct and speedy to secure the most satisfactory results.

PARCEL POST REGULATIONS

We publish herewith the Complete Regulations of the New Canadian Parcel Post System, also a Comparison between the Parcel Post Rates and the present Express Rates. This Comparison was Compiled by Mr. S. B. Brown, of the C.M.A. Transportation Department.

1. Articles of Mail Matter acceptable at Parcel Post rates include farm and factory products, merchandise of all descriptions such as dry goods, groceries, hardware, confectionery, stationery (including blank books, etc.), seeds, cuttings, bulbs, roots, bedding plants, scions or grafts, and all other matter not included in the first class, and not excluded from the mails by the general prohibitory regulations with respect to objectionable matter.

Parcels consisting of third-class matter may be mailed at parcel post rates, or third-class matter rate at the option of the sender.

Parcels containing intoxicating liquors or explosives are expressly prohibited.

2. The rates of postage on articles accepted for transmission by Parcel Post are as follows:

(a) Five cents for the first pound and 1 cent for each additional pound or fraction thereof, up to four pounds, and 2 cents for each subsequent pound up to eleven pounds within a radius of twenty miles from the place of mailing, irrespective of Provincial boundaries.

(b) Ten cents for the first pound and 4 cents for each subsequent pound or fraction thereof, for all points in the Province in which a package is posted, outside of the twenty-mile radius.

(c) Ten cents for the first pound and 6 cents for each additional pound or fraction thereof, for all points outside the Province in which a parcel is posted, and beyond the twenty-mile radius, with an additional charge of 2 cents a pound for each Province that has to be crossed to the destination of the parcel, not including the province in which it is to be delivered, up to a maximum of 12 cents a pound.

The three Provinces, Nova Scotia, New Brunswick and Prince Edward Island, are to be considered as one zone.

An additional charge to meet the extra cost of transportation will be made on parcels addressed to or posted at offices in certain outlying districts when such parcels have to be conveyed more than 100 miles by a continuous stage service, such districts to be designated by the Postmaster-General.

The charge on any parcel shall not be greater than 1 cent an ounce.

3. The postage on Parcel Post packets must be prepaid by means of postage stamps securely affixed to the parcels.

An insufficiently prepaid Parcel Post packet is forwarded to destination subject on delivery to payment of double the deficiency, provided at least one cent is prepaid. After the additional postage required on any short-paid parcel has been collected from the addressee, "postage due" stamps are to be affixed to the parcel and cancelled by the postmaster.

Parcel Post packets totally unpaid will be sent to the Branch Dead Letter Office.

Franking of Parcel Post packets is expressly prohibited.

4. A parcel post packet may be insured within Canada up to an amount of $25.00, or the actual value of the contents; when less than that amount, upon prepayment of a fee of 5 cents in postage stamps and up to an amount of $50.00 or the actual value of the contents; when less than that sum, upon prepayment of a fee of ten cents in postage stamps. This fee must be prepaid, in addition to the ordinary postage, by means of postage stamps, which the sender must affix to the cover.

A parcel intended for insurance should not be dropped into a box or receiver. It should be marked with the word "Insured," and with the amount of the insurance fee the sender is paying, thus "Insured 10 cents," and be handed into the post-office or to the rural carrier and a certificate of posting obtained, bearing an acknowledgment that an insurance fee has been paid.

The onus of properly enclosing and packing a parcel for insurance rests with the sender, the post-office assuming no liability for loss arising from defects which may not have been observed at the time of posting.

Indemnity will be paid to the addressee, or at the request of the addressee, the sender, provided claim is made to the department within one year of the date of posting upon receipt of sworn statements of the persons concerned:—

(a) That according to the best of their knowledge and belief the insured parcel has been lost or its contents damaged in the mails.

(b) As regards the value of the contents of the parcel or the damage sustained.

(c) As regards the ownership of the parcel.

It must appear that the loss or damage did not arise wholly or in part from the fault of the sender, as, for instance, from insufficient packing, inadequate fastenings, loss of "tie-on" label, etc. The indemnity paid will not exceed the value of the contents of the parcel lost or the damage sustained. The right is reserved of reinstating the contents of a parcel instead of giving pecuniary indemnity.

In the case of damage the parcel must be retained, for the purpose of enquiry, as nearly as possible in the state in which it was delivered. If complaint is made that the contents of a parcel have been lost or abstracted, the cover must be produced.

Indemnity for damage to articles of a fragile nature will be given only in those cases in which the parcel is conspicuously marked with the words "Fragile with care."

Parcels containing eggs, fish, meat, fruit, vegetables, glass, crockery, greases, semi-liquids, liquids, or any articles of an exceptionally fragile nature, cannot be insured.

Indemnity will not be given for loss of coin or bank notes.

Indemnity will not be given for injury or damage consequential upon, i.e., indirectly arising from the loss, damage, delay, non-delivery or mis-delivery of any article sent by parcel post.

Indemnity will not be given in the case of a parcel on which the insurance fee has not been paid.

Indemnity may be refused for loss or damage on any ground on which exemption from legal liability may be claimed by a common carrier.

An insured parcel that cannot be delivered within Canada will be sent to the Branch Dead Letter Office.

Parcel post packets must not be registered.

5. Parcels must be prepared for mailing in such manner that the contents can be easily examined.

6. It is desirable that the sender's address should appear either inside the parcel or on the cover. This must be kept distinct from the address proper.

7. Parcels are, when re-directed, chargeable with additional postage at the rate which would have been chargeable had they been originally mailed from the office of re-direction to the new address except in cases where the original and the re-directed addresses are both within the delivery of the same post-office.

8. The limit of weight for a parcel post packet is eleven pounds, and the general limit of size is thirty inches in length by one foot in width or depth, but parcels will be accepted up to 3 ft. 6 in. in length, provided that the combined length and girth do not exceed six feet. For example—a parcel measuring 3 ft. 6 in. in its longest dimensions may measure as much as 2 ft. 6 in. in girth (i.e., round its thickest part); or a short parcel may be thicker; thus if the length is not more than 3 ft. the girth of the parcel may be 3 ft.

9. When practicable, parcel post packets must be sent in covers open at the ends, and in such manner as to be easy of examination. But flour, drugs and such like articles, which cannot be sent in covers of this kind—but such articles only—may be posted enclosed in boxes or in bags of linen or other strong material, fastened in such a manner that they may be easily opened, so as to enable the officers of the post-office readily to satisfy themselves as to the nature of the contents. If paper bags or covers are used for enclosing flour or other similar matter, they must be of extra quality and strength to resist friction and pressure in the mails, and prevent the escape of the contents.

10. Any staple article of use or consumption, properly transmissible by post, contained in the original unbroken package and with proper descriptive label, may be forwarded by parcel post, though the tin or case in which it is enclosed may not admit of being opened in course of post, if posted by parties known to be engaged in the manufacture or sale of the article in question and who vouch that the contents are precisely as described on the label.

11. A parcel may contain invoices and accounts provided they relate exclusively to the contents of such parcel; it is also permitted to enclose a card or slip of paper giving in a brief manner necessary directions for the identification or treatment of the article or articles contained in the parcel. Care must be taken not to abuse this privilege by converting such notes or marks, designed solely for the facilitation of business between the sender and addressee, into what might properly be called correspondence. A parcel containing a letter or any writing intended to serve the purpose of a letter in the ordinary sense will become liable to letter postage.

12. When several separate articles are enclosed in a parcel post packet there is no objection to each bearing a distinguishing number, so as to enable the sender to give directions by letter (sent of course separately and duly prepaid) respecting the several articles which the parcel contains.

13. Any person who wishes to mail a large number of parcels, whether on a particular day or at regular or irregular intervals, will facilitate the work of despatch if he will give the office where they will be posted early information of the number of the parcels, their average weight and the dates and times at which he proposes to send them. He will also consult the convenience of the post-office by sending the parcels to the post in batches, beginning as early in the day as possible.

14. Parcel post packets are subject to the general prohibitory regulations excluding from the mails everything liable to destroy, deface or otherwise damage, the other contents of the mail bags or injure the person of any officer or servant of the post-office, as well as all obscene or immoral matter.

15. Liquids, oils and fatty substances, put up in accordance with the following regulations, are not excluded: When in class bottles or vials, such bottles or vials must be strong enough to stand the shock of handling in the mails, and must be enclosed in a wooden, heavy cardboard or papier maché block or tube not less than three-sixteenths of an inch thick in the thinnest part, strong enough to support the weight of mails piled in bags and resist rough handling; and there must be provided between the bottle and its outer case a cushion of cotton or spongy material sufficient to absorb the liquid, etc., in case the bottle should be broken, the block or tube to be impervious to liquid (including oils) and to be closed by a tightly fitting screw-lid of wood or metal with a rubber or other pad so adjusted as to make the block or tube water-tight and to prevent the leakage of the contents in case of breaking of the glass. When enclosed in a tin cylinder, metal case or tube, such cylinder, case or tube, should have a screw-lid with a rubber or cork cushion inside in order to make the same water-tight, and should be securely fastened in a wooden or papier maché block (open only at one end) and

not less in thickness and strength than above described. Manufacturers or dealers intending to transmit such articles by parcel post or as samples, in considerable quantities, should submit a specimen package showing their mode of packing to the postmaster at the mailing office, who will see that the conditions of this section are carefully observed.

16. Specimens of diseased tissues, when carefully enclosed in specially constructed double tin cases, closely packed with absorbent matter, and with closely fitting screw caps, may pass at parcel post rates, addressed to Provincial Boards of Health and public laboratories.

17. The following articles in glass, viz.: Eye-glasses, spectacles and microscopic slides, may be forwarded by parcel post if put up in such a manner as to admit at once of easy inspection and to guard against injury to persons handling the mails.

18. Parcel post packets containing anything of a fragile nature should be marked "Fragile with care" and parcels containing articles of a perishable nature, such as fish, fruit, meat, etc., should be marked "Perishable." Parcels sent by mail should in all cases be substantially and securely packed so as to preserve the contents from loss or damage and prevent injury to the mails. The department desires to co-operate with the public in seeing that special attention is paid to the important matter of packing, particularly with regard to parcels containing matter of a fragile or perishable character or of a nature to destroy or injure the other contents of the bags or sacks in which they are sent forward. In order that proper precaution may be exercised in this particular, persons desirous of transmitting articles by parcel post are advised to consult the postmaster as to the proper method of packing in all cases.

As the safe transit of eggs is a matter of some difficulty, shippers are advised to adopt the following method of packing: Use a wooden, papier maché, or other box of a rigid material with a well-fitting tightly adjusted lid, wrap each egg separately in newspaper or other protecting material, place the eggs on end and fill up the vacant spaces in the box with newspaper or other packing material, so as to prevent the eggs from striking together or against the sides, top or bottom of the box; mark the parcel "eggs."

Parcels containing goods likely to spoil within the time reasonably required for transportation and delivery must not be accepted for mailing.

19. Postmasters must exercise the greatest possible care to see that all parcels accepted for transmission by Parcel Post conform in every particular to the requirements of these regulations. This applies with special force to parcels containing perishable goods or fragile articles.

20. Requests for direct return are recognized on Parcel Post packets addressed to a place in Canada, and parcels bearing the address of the sender may also be returned direct after being held fifteen days. Parcel Post packets so returned are subject to a charge equal to the original postage charge. This charge is to be marked by the office returning the parcel and collected from the sender before delivery by the office to which it has been returned, "postage due" stamps for the amount collected being affixed to the parcel and cancelled by the postmaster.

21. After a parcel has been delivered to the person to whom it is addressed it cannot be returned to the sender, unless the person returning it pays the necessary return postage.

22. The Postmaster-General reserves the right to refuse to accept for transmission by mail, grain or any other commodity shipped in excessive quantities which might interfere with the transportation of first class matter, or other articles such as those enumerated in paragraph 1.

PARCEL POST RATES

RATES OF POSTAGE ON PARCELS MAILED IN THE MARITIME PROVINCES

Addressed to	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Any post office within 20 miles,* including place of mailing	$0.05	$0.06	$0.07	$0.08	$0.10	$0.12	$0.14	$0.16	$0.18	$0.20	$0.22
Any post office beyond 20 miles, but within the Maritime Provinces	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Any post office in Quebec	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Any post office in Ontario	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Any post office in Manitoba	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Any post office in Saskatchewan, Alberta or British Columbia	12.	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

RATES OF POSTAGE ON PARCELS MAILED IN THE PROVINCE OF QUEBEC

Addressed to	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Any post office within 20 miles,* including place of mailing	$0.05	$0.06	$0.07	$0.08	$0.10	$0.12	$0.14	$0.16	$0.18	$0.20	$0.22
Any post office beyond 20 miles, but within the Province of Quebec	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Any post office in Ontario or Maritime Provinces.	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Any post office in Manitoba	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Any post office in Saskatchewan	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Any post office in Alberta or British Columbia	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

RATES OF POSTAGE ON PARCELS MAILED IN THE PROVINCE OF ONTARIO

Addressed to	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Any post office within 20 miles,* including place of mailing	$0.05	$0.06	$0.07	$0.08	$0.10	$0.12	$0.14	$0.16	$0.18	$0.20	$0.22
Any post office beyond 20 miles, but within the Province of Ontario	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Any post office in Quebec or Manitoba	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Any post office in Saskatchewan or Maritime Provinces	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Any post office in Alberta	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Any post office in British Columbia	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

RATES OF POSTAGE ON PARCELS MAILED IN THE PROVINCE OF MANITOBA

Addressed to	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Any post office within 20 miles,* including place of mailing	$0.05	$0.06	$0.07	$0.08	$0.10	$0.12	$0.14	$0.16	$0.18	$0.20	$0.22
Any post office beyond 20 miles, but within the Province of Manitoba	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Any post office in Ontario or Saskatchewan	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Any post office in Quebec or Alberta	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Any post office in the Maritime Provinces or British Columbia	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14

RATES OF POSTAGE ON PARCELS MAILED IN THE PROVINCE OF SASKATCHEWAN

Addressed to	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Any post office within 20 miles,* including place of mailing	$0.05	$0.06	$0.07	$0.08	$0.10	$0.12	$0.14	$0.16	$0.18	$0.20	$0.22
Any post office beyond 20 miles, but within the Province of Saskatchewan	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Any post office in Manitoba or Alberta	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Any post office in Ontario or British Columbia	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Any post office in Quebec	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Any post office in the Maritime Provinces	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

RATES OF POSTAGE ON PARCELS MAILED IN THE PROVINCE OF ALBERTA

Addressed to	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Any post office within 20 miles,* including place of mailing	$0.05	$0.06	$0.07	$0.08	$0.10	$0.12	$0.14	$0.16	$0.18	$0.20	$0.22
Any post office beyond 20 miles, but within the Province of Alberta	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Any post office in Saskatchewan or British Columbia	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Any post office in Manitoba	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Any post office in Ontario	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Any post office in Quebec or Maritime Provinces	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

RATES OF POSTAGE ON PARCELS MAILED IN THE PROVINCE OF BRITISH COLUMBIA.

Addressed to	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Any post office within 20 miles,* including place of mailing	$0.05	$0.06	$0.07	$0.08	$0.10	$0.12	$0.14	$0.16	$0.18	$0.20	$0.22
Any post office beyond 20 miles, but within the Province of British Columbia	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Any post office in Alberta	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Any post office in Saskatchewan	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Any post office in Manitoba	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Any post office in Ontario, Quebec or Maritime Provinces	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

The maximum charge on any parcel shall not exceed 1 cent an ounce.
*This rate also obtains in cases where the 20 mile area extends into an adjacent Province.

23. During the organization period covering the months of February, March and April, 1914, an additional fee of five cents to be prepaid by postage stamps will be charged on each parcel mailed for local delivery in places where the letter carrier system is in operation.

During the months of February, March and April, 1914, no packet will be accepted for transmission by Parcel Post weighing more than six pounds.

LOUIS P. PELLETIER,
Postmaster-General.
Post Office Department, Canada.
Ottawa, January 15th, 1914.

Note.—The following is a comparison of the new Parcels Post rates with the present express rates:

COMPARISON BETWEEN PARCEL POST AND EXPRESS RATES

FROM HALIFAX, N.S.

20 Mile Zone—To Windsor Junction, N.S., 14 miles.	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Express Rates	$0.25	$0.25	$0.25	$0.25	$0.25	$0.30	$0.30	$0.30	$0.30	$0.30	$0.30
Parcel Post Rates	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22
Provincial†—Amherst, N.S., 138 miles.											
Express Rates	.25	.30	.30	.30	.35	.35	.35	.35	.40	.40	.45
Parcel Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Provincial†—St. John, N.B., 276 miles.											
Express Rates	.25	.30	.30	.35	.40	.40	.40	.40	.45	.45	.45
Parcel Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Provincial†—Fredericton, N.B., 321 miles.											
Express Rates	.25	.30	.35	.35	.40	.45	.45	.45	.50	.50	.55
Parcel Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Interprovincial (1)—Montreal, Que., 758 miles.											
Express Rates	.25	.35	.45	.50	.55	.60	.65	.70	.75	.75	.80
Parcel Post Rates	.10	.16	.22.	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (2)—Toronto, Ont., 1,092 miles.											
Express Rates	.25	.35	.45	.60	.65	.75	.80	.80	.85	.85	.95
Parcel Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (2)—Fort William, Ont., 1,753 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.10	1.30
Parcel Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (3)—Winning, Man., 2,172 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.15	1.20	1.45
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (4)—Regina, Sask., 2,530 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.20	1.25	1.60
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Interprovincial (5)—Calgary, Alta., 3,009 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.15	1.25	1.35	1.75
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Interprovincial (6)—Vancouver, B.C., 3,656 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.20	1.35	1.50	2.00
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

FROM MONTREAL.

20 Mile Zone—To St. Johns, Que., 30 miles.	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Express Rates	$0.25	$0.25	$0.25	$0.25	$0.25	$0.30	$0.30	$0.30	$0.30	$0.30	$0.30
Parcels Post Rates	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22
Provincial†—Quebec, Que., 173 miles.											
Express Rates	.25	.30	.30	.30	.35	.35	.35	.35	.40	.40	.40
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Interprovincial (1)—Fredericton, N.B., 460 miles.											
Express Rates	.25	.30	.40	.45	.50	.55	.55	.55	.60	.60	.65
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (1)—Sydney, N.S., 910 miles.											
Express Rates	.25	.35	.45	.60	.65	.70	.75	.75	.80	.80	.90
Parcel Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (1)—Toronto, Ont., 334 miles.											
Express Rates	.25	.30	.30	.35	.40	.40	.40	.40	.45	.45	.45
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (1)—Fort William, Ont., 995 miles.											
Express Rates	.25	.35	.45	.60	.70	.75	.80	.85	.90	.95	1.05
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (2)—Winnipeg, Man., 1,414 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.00	1.00	1.10	1.25
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (3)—Regina, Sask., 1,772 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.15	1.35
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (4)—Calgary, Alta., 2,251 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.15	1.20	1.50
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Interprovincial (5)—Vancouver, B.C., 2,898 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.15	1.25	1.35	1.85
Parcels Post Rates	.12	.24	.36	.48	.60	.72	84	.96	1.08	1.20	1.32

FROM TORONTO, ONT.

20 Mile Zone—To Brampton, Ont., 22 miles.	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Express Rates	$0.25	$0.25	' 25	$0.25	$0.25	$0.30	$0.30	$0.30	$0.30	$0.30	$0.30
Parcels Post Rates	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22
Provincial†—Ottawa, Ont., 155 miles.											
Express Rates	.25	.30	.30	.35	.40	.40	.40	.40	.45	.45	.45
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Provincial†—Windsor, Ont., 227 miles.											
Express Rates	.25	.30	.35	.35	.40	.45	.45	.45	.50	.50	.55
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50

FROM TORONTO, ONT.—Continued.

	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Provincial †—Fort William, Ont., 817 miles.											
Express Rates	$0.25	.35	.45	.60	.65	.75	.80	.80	.85	.85	.95
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Interprovincial (1)—Montreal, Que., 334 miles.											
Express Rates	.25	.30	.30	.35	.40	.40	.40	.40	.45	.45	.45
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (1)—Quebec, Que., 507 miles.											
Express Rates	.25	.30	.40	.45	.50	.55	.55	.55	.60	.60	.65
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (2)—Fredericton, N.B., 794 miles.											
Express Rates	.25	.35	.45	.55	.60	.65	.70	.70	.75	.75	.85
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (2)—Sydney, N.S., 1,254 miles.											
Express Rates	.25	.35	.45	.60	.70	.75	.80	.85	.90	.95	1.05
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	76	.84	.92
Interprovincia. (1)—Winnipeg, Man., 1,242 miles.											
Express Rates	.30	.35	.45	.60	.75	.85	.90	.90	.95	1.00	1.15
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (2)—Regina, Sask., 1,600 miles.											
Express Rates	.30	.35	.45	.60	75	.90	1.00	1.05	1.10	1.10	1.30
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (3)—Calgary, Alta., 2,079 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.15	1.20	1.50
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (4)—Vancouver, B.C., 2,898 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.15	1.25	1.35	1.80
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

FROM WINNIPEG, MAN.

	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
20 Mile Zone—To Stonewall, Man., 20 miles.											
Express Rates	$0.25	$0.25	$0.25	$0.25	$0.25	$0.30	$0.30	$0.30	$0.30	$0.30	$0.30
Parcels Post Rates	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22
Provincial †—Birtle, Man., 195 miles.											
Express Rates	.25	.30	.35	.40	.45	.50	.50	.50	.55	.55	.60
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Provincial †—Swan River, Man., 279 miles.											
Express Rates	.25	.35	.45	.50	.55	.60	.65	.70	.75	.75	.80
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Interprovincial (1)—Fort William, Ont. 419 miles.											
Express Rates	.25	.35	.45	.55	.60	.65	.70	.70	.75	.75	.85
Parcel Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial(1)—Toronto, Ont., 1,242 miles.											
Express Rates	.30	.35	.45	.60	.75	.85	.90	.90	.95	1.00	1.15
Parcel Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (1)—Regina, Sask., 358 miles.											
Express Rates	.25	.35	.45	.50	.55	.60	.65	.70	.75	.75	.80
Parcel Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (2)—Montreal, Que., 1,414 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.00	1.00	1.10	1.25
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (2)—Quebec, Que., 1,586 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.10	1.25
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (3)—Halifax, N.S., 2,172 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.15	1.20	1.45
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (2)—Calgary, Alta., 837 miles.											
Express Rates	.25	.35	.45	.60	.70	.75	.80	.85	.90	.95	1.05
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (3)—Vancouver, B.C., 1,484 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.15	1.25
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14

FROM REGINA, SASK.

	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
20 Mile Zone—To Lumsden, Sask., 20 miles.											
Express Rates	$0.25	$0.25	$0.25	$0.25	$0.25	$0.30	$0.30	$0.30	$0.30	$0 30	$0.30
Parcel Post Rates	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22
Provincial †—Swift Current, Sask., 152 miles											
Express Rates	.25	.30	.35	.35	.40	.45	.45	.45	.50	.50	.55
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Provincial †—Saskatoon, Sask., 160 miles.											
Express Rates	.25	.30	.40	.45	.50	.55	.55	.55	.60	.60	.65
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Interprovincial (1)—Calgary, Alta., 479 miles.											
Express Rates	.25	.35	.45	.55	.65	.70	.75	.75	.75	.75	.85
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (1)—Winnipeg, Man., 358 miles.											
Express Rates	.25	.35	.45	.50	.55	.60	.65	.70	.75	.75	.80
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (2)—Vancouver, B.C., 1,126 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.10	1.25
Parcel Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (2)—Fort William, Ont., 777 miles.											
Express Rates	.25	.35	.45	.60	.70	.75	.80	.85	.90	.90	1.00
Parcel Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (2)—Toronto, Ont., 1,600 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.10	1.30
Parcel Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (3)—Montreal, Que., 1,772 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.15	1.35
Parcel Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (4)—Fredericton, N.B., 2,232 miles.			.45	.60	.80	.90	1.00	1.10	1.15	1.20	1.50
Express Rates	.30	.35	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Parcel Post Rates	.12	.24									
Interprovincial (4)—Sydney, N.S., 2,682 miles.			.45	.60	.80	.90	1.00	1.10	1.20	1.25	1.60
Express Rates	.30	.35	.35	.48	.69	.72	.84	.96	1.08	1.20	1.32
Parcel Post Rates	.12	.24									

FROM CALGARY, ALTA.

	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
20 Mile Zone—To Glenbow, Alta., 18 miles.											
Express Rates	$0.35	$0.25	$0.25	$0.25	$0.25	$0.30	$0.30	$0.30	$0.30	$0.30	$0.30
Parcels Post Rates	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22
Provincial †—Edmonton, Alta., 194 miles.											
Express Rates	.25	.30	.35	.40	.45	.50	.50	.50	.55	.55	.60
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Provincial †—McLeod, Alta., 108 miles.											
Express Rates	.25	.30	.30	.35	.40	.40	.40	.40	.45	.45	.45
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Interprovincial (1)—Revelstoke, B.C., 267 miles.											
Express Rates	.25	.35	.45	.55	.60	.65	.70	.70	.75	.75	.85
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70

FROM CALGARY, ALTA.—Continued.

	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
Interprovincial (1)—Vancouver, B.C., 647 miles.											
Express Rates	$0.25	.35	.45	.60	.70	.80	.85	.90	.95	1.00	1.10
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	70
Interprovincial (1)—Regina, Sask., 479 miles.											
Express Rates	.25	.35	.45	.55	.65	.70	.75	.75	.75	.75	.85
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (2)—Winnipeg, Man., 837 miles.											
Express Rates	.25	.35	.45	.60	.70	.75	.80	.85	.90	.95	1.05
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (3)—Fort William, Ont., 1,256 miles.											
Express Rates	.30	.35	.45	.60	.75	.85	.95	.95	1.00	1.05	1.20
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (3)—Toronto, Ont., 2,079 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.15	1.20	1.45
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (4)—Montreal, Que., 2,251 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.15	1.20	1.50
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Interprovincial (5)—Fredericton, N.B., 2,711 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.20	1.30	1.65
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Interprovincial (5)—Sydney, N.S., 3,161 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.15	1.25	1.25	1.85
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

FROM VANCOUVER, B.C.

	1 lb.	2 lbs.	3 lbs.	4 lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.	9 lbs.	10 lbs.	11 lbs.
20 Mile Zone—To New Westminster, B.C., 23 miles.											
Express Rates	$0.25	$0.25	$0.25	$0.25	$0.25	$0.30	$0.30	$0.30	$0.30	$0.30	$0.30
Parcels Post Rates	.05	.06	.07	.08	.10	.12	.14	.16	.18	.20	.22
Provincial†—Kamloops, B.C., 251 miles.											
Express Rates	.25	.35	.45	.55	.60	.65	.70	.70	.75	.75	.85
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Provincial†—Revelstoke, B.C., 380 miles.											
Express Rates	.25	.35	.45	.60	.65	.75	.80	.80	.85	.85	.95
Parcels Post Rates	.10	.14	.18	.22	.26	.30	.34	.38	.42	.46	.50
Interprovincial (1)—Calgary, Alta., 647 miles.											
Express Rates	.25	.35	.45	.60	.70	.80	.85	.90	.95	1.00	1.10
Parcels Post Rates	.10	.16	.22	.28	.34	.40	.46	.52	.58	.64	.70
Interprovincial (2)—Regina, Sask., 1,126 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.10	1.25
Parcels Post Rates	.12	.20	.28	.36	.44	.52	.60	.68	.76	.84	.92
Interprovincial (3)—Winnipeg, Man., 1,484 miles.											
Express Rates	.30	.35	.45	.60	.75	.90	1.00	1.05	1.10	1.15	1.35
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (4)—Fort William, Ont., 1,903 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.10	1.15	1.20	1.50
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Interprovincial (4)—Toronto, Ont., 2,726 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.15	1.25	1.35	1.80
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Interprovincial (5)—Montreal, Que., 2,898 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.15	1.25	1.35	1.85
Parcels Post Rates	.12	.24	.34	.44	.54	.64	.74	.84	.94	1.04	1.14
Interprovincial (6)—Fredericton, N.B., 3,358 miles.											
Express Rates	30	.35	.45	.60	.80	.90	1.00	1.20	1.35	1.50	2.00
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32
Interprovincial (6)—Sydney, N.S., 3,808 miles.											
Express Rates	.30	.35	.45	.60	.80	.90	1.00	1.20	1.35	1.50	2.10
Parcels Post Rates	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	1.32

The reference (Provincial†) indicates that the rates shown are applicable upon parcels mailed from and to a point within a province (or group).

The references (Interprovincial) (1), (2), (3), (4), (5), (6) indicate that the Parcels Post rates shown are applicable on parcels mailed to the 1st, 2nd, 3rd, 4th, 5th or 6th province (or group) from the province in which parcel is mailed.

Example—A parcel mailed in British Columbia to a point in Alberta is to the 1st province (or group), and to a point in the Maritime Provinces to the 6th province (or group).

It is to be noted that Prince Edward Island, Nova Scotia and New Brunswick are considered as one province (or group).

Note: Section 23 on page 1026 is important and should be read carefully.

FOREIGN TRADE OF CANADA.

For the twelve months ended November, 1913, Canada sold goods to Great Britain, valued at $216,517,874.00. This represents an increase of $44,250,000.00 over the like preceding period. In the same twelve months we imported from Great Britain goods valued at $141,428,651.00, an increase of about eleven million dollars. In the same period we sold goods to the United States valued at $188,731,853.00—an increase of $40,230,000.00. Our imports from the United States for the same twelve months, were valued at $438,459,955.00—an increase of twenty-four millions.

For the nine months, ending December, 1913, Canada's total foreign trade amounted to $866,337,187.00—an increase of $72,509,573.00, over our foreign trade for the same period a year ago. For the calendar year, 1913, our foreign trade amounted to $1,119,578,117.00—an increase over 1912 of $121,022,956.00. Increase in imports during this period was $23,469,290.00, and in exports $94,237,185.00. (Coin and bullion not included). A pleasing feature of the increase in exports is that the value of manufactured goods exported increased approximately thirteen million dollars during the calendar year 1912.

More and more it is apparent that manufacturers who have not hitherto ventured into the foreign field are studying conditions and finding that the drawback allowed by the Canadian Government of 99 per cent. of duties paid on imported materials used, wrought into, or attached to manufactured articles exported, will enable them, by developing foreign business, to reduce overhead expenses and also to steady the employment organization throughout the factory. The drawback arrangements work out so that the manufacturer enjoys practically duty free materials for manufacturing for export.

One of the bosses at Baldwin's Locomotive Works had to lay off an argumentative Irishman named Pat, so he saved discussion by putting the discharge in writing. The next day Pat was missing. But a week later the boss was passing through the shop, and he saw him again at his lathe. Going up to the Irishman, he demanded fiercely:

"Didn't you get my letter?"

"Yes, sur, Oi did," said Pat.

"Did you read it?"

"Sure, sur, Oi read it inside and Oi read it outside," said Pat, "and on the inside yez said Oi was fired, and on the outside yez said, 'Return to Baldwin's Locomotive Works in five days.'"

TRANSPORTATION

By J. E. WALSH

NUMEROUS collisions and derailments during the last three years have created a general belief that the substitution of steel for wooden cars would be of decided advantage, says a writer in *Trade and Transportation.*

The rapid introduction of steel cars appears to have started with the electric operation of the New York City terminals from the necessities of electric railway service. The danger from fire in wooden cars due to electric short circuits has long been appreciated by electrical engineers. The result has been a rapid introduction of steel equipment in trains operating into New York, especially by the Pennsylvania and New York Central railroads.

The collision and derailment record appears to be favorable to steel cars, and their advantages have been pointed out in the accident reports to the Interstate Commerce Commission and by various railroad commissions. The result has been a practical abandonment of wooden car construction and an enormous development of the steel car industry.

Steel Car Statistics.

The extent to which the railroads have been introducing steel cars shows that 247 companies operating 227,574 miles of road and 57,593 passenger vehicles, bought 1,800 cars in 1909, of which 26 per cent. were steel; 2,660 cars in 1912, of which 68.7 per cent. were steel, 20.9 per cent. of steel underframe construction, and only 10.4 per cent. of wood construction, while 1,649 cars were under construction on January 1st last, of which only 3.3 per cent. were of wood, and 85.2 per cent. were all steel construction. Between January 1st and July 1st, 1912, orders were given by railways for 1,140 passenger cars. Of these, 1,064, or 93.3 per cent., are of all steel construction, and 76 cars, or 6.7 per cent., have steel underframes. The construction of wooden passenger equipment has practically ceased. On January 1st last there were 7,271 all-steel and 3,296 steel underframe cars in service. There were 6,642 all-steel cars more in service last January than four years before.

The number of all-steel cars in service are over 10 per cent. of the total equipment, and steel underframe cars over 4 per cent., a total of nearly 15 per cent. The approximate cost of replacement of wooden cars by steel is estimated by the railroads as follows:

	Number.	Amount.
Postal	680	$ 7,480,000
Mail and baggage	2,724	27,240,000
Mail, baggage and passenger	679	6,790,000
Baggage and passenger	3,757	37,570,000
Baggage or express	7,431	63,163,500
Passenger	23,692	303,257,600
Parlor, sleeping, dining	6,864	151,008,000
Business	774	11,610,000
Motor	325	6,500,000
Total	46,926	$614,619,100

Annual interest charged at 5 per cent., $30,730,955.

The class of accidents which have led to the demand for steel cars has been rear-end collisions, and that it appears clear that the most important elements in this connection are the signalling system, the appreciation and devotion to duty of engine and train men, and the selection, instruction and discipline of these men.

Spotting Cars and Loading L.C.L. Shipments on Private Sidings.

The Interstate Commerce Commission, as a result of its investigation in the industrial railways case, which was an investigation into the allowances made by the line carriers to industrial railways for switching, etc., has opened an enquiry into the question of making a charge for spotting cars for loading and unloading on private tracks. The Commission suggests that this may be a proper move for increasing the revenues of the carriers.

It is needless to say that there is very strong objection thereto, especially as it is an attempt to introduce into America some of the practices which prevail in England and Germany, where traffic is moved under entirely different conditions. It has always been the practice in this country to deliver traffic where it is wanted at a through rate from point of shipment to destination.

It is pointed out by the Interstate Commerce Commission that the owner of a private siding enjoys special privileges and thus escapes terminal expenses which he otherwise would have to bear. It is not anticipated that there will be much trouble in correcting that impression.

The last hearing in this matter was held in Washington on February 27th and 28th. The argument will be had on March 16th and 17th.

5% Advance—International, Export and Import Rates.

The Interstate Commerce Commission has further suspended the proposed advance until September 12th next. It is, however, expected that the matter will be disposed of before the holidays.

Settlement of Claims for Loss, Damage and Delay.

The Interstate Commerce Commission has granted the joint application of shippers and carriers for the suspension of its recent ruling that the condition in the freight classifications and tariffs that such claims must be filed within four months after delivery must be strictly complied with.

All claims presented prior to December 1, 1913, which were not presented within the four-month period, and also all claims accruing within two years prior to February 9th which have not been presented to the carriers, will be considered, provided they are presented on or before April 1, 1914.

As some of the Canadian roads have considered it proper to follow the practices of the American roads, shippers should see that all old outstanding claims are filed at once, and that in future such claims are filed within the four-month period as called for by the following condition of the bill of lading.

> "Notice of loss, damage or delay must be made in writing to the Carrier at the point of delivery, or to the Carrier at the point of origin, within four months after delivery of the goods, or in case of failure to make delivery, then within four months after a reasonable time for delivery has elapsed. Unless notice is so given the Carrier shall not be liable."

INSVRANCE

IN the following table (compiled by Mr. J. Grove Smith, of the Canadian Fire Underwriters' Association) the per capita losses, and fires per 1,000 of the population, are given for representative towns and cities of England and Canada:

CANADA, 1912.

	Per Capita Loss.	No of Fires per 1,000.
Hamilton	$1.88	4.6
Vancouver	4.45	4.7
Calgary	.95	5.0
Regina	3.47	3.3
Halifax	6.66	2.9
Toronto	2.45	3.7
Brantford	1.98	3.0
Winnipeg	3.88	1.5
London	1.05	3.7
Saskatoon	6.85	6.8
Total average	$3.36	3.9

ENGLAND, 1912.

	Per Capita Loss.	No. of Fires per 1,000
London	$0.46	.74
Glasgow	0.76	.62
Birmingham	0.48	.95
Manchester	0.55	.69
Sheffield	0.57	.57
Leeds	1.26	.67
Belfast	0.09	.40
Bristol	0.15	.62
Edinburgh	0.21	.97
Dublin	0.42	.47
Total average	$0.49	.67

The average per capita fire loss of each province annually was as follows:

British Columbia	$4.59 per capita.
Manitoba	3.30 " "
Ontario	3.27 " "
Saskatchewan	2.37 " "
Nova Scotia	2.24 " "
Quebec	2.16 " "
New Brunswick	2.02 " "
Prince Edward Island	1.23 " "
Alberta	1.20 " "

From an annual loss of more than $1,000,000 the damage by fire in the forests of Michigan, U.S.A., last year was reduced to $23,000. In 1911 the fire loss was $3,500,000, and in 1912 $67,000. In making his annual report the State Game and Forestry Warden, William R. Coates, commends the schoolboys in the forestry district for their assistance. In the year, 3,000 Michigan forest scouts patrolled the timber sections.

It was after the disastrous forest fires in 1911 that the State Department conceived the idea of forming an organization of schoolboys into Boy Scouts, and the following year there were more than 1,500 enrolled, known as Michigan Forest Scouts. Five hundred and nine fires were extinguished by these boys in 1912, according to the State records, and with an increased membership to more than 3,000, the number of fires extinguished by the boys amounted to 731.

That there is a widespread demand in Ontario for a Provincial Fire Marshal clothed with the necessary powers to give effect to modern fire prevention regulations is evidenced by the deputation which waited upon the Honorable the Attorney-General for the Province on the 30th of January last.

The Ontario Fire Prevention Association acted as the medium through which representatives of the following bodies were brought together for the purpose of presenting their recommendations in regard to the proposed bill to the Attorney-General:

Ontario Associated Boards of Trade, Canadian Manufacturers Association, Toronto, Hamilton and Guelph Boards of Trade, Canadian Fire Underwriters' Association, Association of Mutual Fire Underwriters, Ontario Association of Architects, Provincial Association of Fire Chiefs, Canadian Credit Men's Association, Ottawa Fire Prevention Association, Employers' Association of Toronto, and the Retail Merchants' Association.

Just before the close of the last session of the Legislature the Attorney-General introduced a bill to provide for the appointment of a fire marshal. This bill, however, was withdrawn, it being generally understood that it would be re-introduced at the coming session in an amended form. The Ontario Fire Prevention Association, during the interim, suggested several amendments to the bill and asked the Associations interested to send representatives to a meeting for the purpose of ascertaining if the bill, as amended, was in accordance with the general conception of what fire marshal legislation should be. The proposed bill has been unanimously approved by these public bodies and, when consideration is given to the fact that this influence reaches to all sections of the Province, their demand for such legislation is a mandate which must indicate to the Government that the time is now ripe for regulations that will help in some measure to control or reduce the tremendous fire waste.



Kero and Gaso in their Great Act —*Regina Leader*

TARIFF

By J. R. K. BRISTOL

MEMBERS are invited to communicate any circumstances which indicate evidence of undervaluation of imports; also any questions affecting their interests regarding interpretation of the tariff law.

United States textile manufacturers are making spectacular efforts to exploit this and other foreign markets. These endeavors may result in demonstrating the inability of United States textile manufacturers to meet European competition in the European markets, whilst maintaining the United States wage rate to their employees; and on the other hand, if their endeavors are crowned with success the greater efficiency in operation of United States factories will, it seems, be completely demonstrated. At any rate if these manufacturers can prove that they have made sincere but fruitless efforts to compete for export business against low priced labor in the European markets, their endeavors will not be without results.

The New Zealand Government have adopted a new law relating to the valuation of imported goods subject to ad valorem duty. Heretofore, the usual credit value of the goods with 10 per cent. added, was taken as representing the value for duty; now the "home" cash value with 10 per cent. added is to be taken as the value for customs purposes. The principal provisions follow:

"114—(1) When any duty is imposed on goods according to the value thereof such value shall be taken to be the fair market value of such goods when sold for cash in the ordinary course of business for home consumption in the principal markets of the country from which the goods are exported at the time when they were so exported, with 10 per cent. added to such fair market value.

"(2) No deduction of any kind shall be allowed from the fair market value of such goods because of any special or sample discount, or because of any special arrangement concerning the export of the goods, or the exclusive right to the sale thereof within certain territorial limits, or because of any royalty payable upon patent rights, but not payable when goods are so exported, or on account of any other consideration by which a special reduction in price has been or might be, obtained.

"(3) If it is proved to the satisfaction of the Collector that any import duty or excise duty has been actually paid upon the goods in the country from which they were exported, or would have been payable upon the goods in that country if they had been there entered for home consumption instead of being exported therefrom, the amount of that duty shall be deducted from the fair market value of the goods, as determined in accordance with the foregoing provisions."

By section 115 it is provided that:

"115—(1) For the purpose of determining the value of any goods so subject to ad valorem duty, the importer or his agent shall, on the first entry thereof (other than an entry for removal) produce to the Collector or other proper officer the invoice (as hereinafter defined) for those goods, and make, and deliver to the Collector or other proper officer, a declaration in the prescribed form verifying that invoice, and setting out the true value of the goods for the purposes of duty, and such other particulars as may be prescribed.

"(2) If a failure to produce the invoice is accounted for to the satisfaction of the Collector or other proper officer, proof of its contents by a copy or otherwise may be received in lieu of its production."

The "invoice" referred to is defined in section 116, as follows:

"116—The invoice herein referred to means:

"(a) In the case of goods imported on the sale thereof the original invoice prepared and issued by or on behalf of the seller showing the true description of the goods and the actual money price paid or to be paid for the goods by the purchaser; or

"(b) In the case of goods consigned for sale in New Zealand, or otherwise than on the sale thereof, the original invoice prepared and issued by the consignor showing the true description of the goods and the fair market value thereof as hereinbefore defined in the principal markets of the country whence they were exported at the date of exportation thereof."

With regard to the valuation of goods by the Collector, it is prescribed, under section 117, that:

"117—(1) Subject to the provisions of this section, the amount of the invoice, after deducting therefrom all reasonable and lawful deductions in respect of discount, freight, insurance and other charges, may be accepted by the Collector as sufficient proof of the fair market value of the goods for purposes of duty, and he may value the goods and assess the duty accordingly.

"(2) If the importer satisfies the Collector that the fair market value of the goods for purposes of duty is less than the value as shown by the said invoice after making such deductions as aforesaid, the Collector shall value the goods at such lesser sum accordingly, and shall assess the duty on that value.

"(3) If the Collector has reason to believe or suspect that the fair market value of the goods for purposes of duty is greater than the amount of the said invoice, after making such deductions as aforesaid, he may value the goods at such higher sum as he thinks proper, and assess the duty on that value accordingly."

As regards the importation of medicinal and toilet preparations, it is provided, under section 125, that "in the case of any medicinal or toilet preparation imported for the purpose of sale under any proprietary or trade name the fair market value thereof for the purpose of ad valorem duty shall be deemed to be the fair market value as hereinbefore defined of such preparation when completely manufactured, put up, labelled and sold under such proprietary or trade name in the country of export, notwithstandnig the fact that at the time of exportation or importation the preparation may not have been completely manufactured, put up and labelled as aforesaid, but deducting the estimated cost of labor and material used or expended in New Zealand in completing the manufacture thereof or in putting up or labelling the same."

PARLIAMENTARY

By F. W. WEGENAST

MR. H. S. WOLFE, the New York actuary, who, it will be remembered, was brought before the Ontario Government's Commissioner on workmen's compensation on behalf of the liability insurance companies and the railway companies, recently made a second appearance in Toronto at a luncheon given by the casualty companies through the medium of the Toronto Board of Trade. Mr. Wolfe devoted the larger portion of his address to a lengthy and irrelevant review of the origin of the German system, with the evident purpose of supporting the argument that the draft bill of Sir William Meredith, being based on the German system, was not adapted to conditions in this Province. Assuming the premises of this argument to be correct, which they are not, it is a long step between the premises and the conclusion. The proposed bill is not based upon the German system, though its principles are in some respects similar. Without attempting to describe the difference, it may be said briefly that, while the system proposed under the Commissioner's bill is that of collective liability or mutual insurance administered by the State, the German system is one of mutual insurance not administered by the State but by autonomous associations of employers. The system most nearly corresponding to the proposal, or intended proposal, of the Commissioner's bill is that of the State of Washington. A review of the circumstances leading to the passing of the Washington Act would have been more apropos though perhaps not so entertaining and perhaps not so useful for Mr. Wolfe's rather vague purposes.

* * * * *

The system of the State of Washington was largely the product of the activities of the Pacific Coast Lumbermen's Association, though it had the aggressive support of the labor interests and is uniformly regarded by labor interests in the United States as a model Act. On the part of the lumber manufacturers the controlling incentive, rightly or wrongly, was to eliminate the middleman in insurance, the employers' liability insurance company, and to ensure that the money paid out by the employer would reach its destination, the injured workman or his dependents, by the quickest and most economical route. It is worth repeating, by the way, that the conclusions and arguments of the Canadian Manufacturers Association have been largely formulated with the same end in view before the Washington Act had been passed, and without a knowledge of its nature. While the Province of Ontario will lose the credit for originality it will be as truly responsible for any State system established as if it had been the first of its kind. And whatever may be drawn from German experience, the system will certainly not be a copy of the German system.

* * * * *

Mr. Wolfe's address was evidently directed toward two objects: First, to discredit the current cost plan of actuarial rating, and second to plead on behalf of the liability insurance company for the privilege of competing with the state insurance system, the latter plea being disguised as a plea for free choice on the part of the employer whether he would come under the state system or insure in a stock company. Without discussing the close connection between these two objects it may be noted that the first was treated by way of assumption rather than argument, Mr. Wolfe being apparently unwilling to enter upon another argument such as that before the Commissioner terminating as it did. The second object was also pursued on the basis of assumptions entirely unfounded, the arguments failing with the assumptions. The primary and fatal assumption was that under a state system all employers in a group would be treated alike without subclassification or differentiation. This assumption is so absurd that it requires only a moment's thought to dispel it. While the provisions of the Commissioner's bill are inadequate for proper classification and differentiation this is not a matter of inherent principle, and is subject to correction.

* * * * *

There is every reason to believe that the representations and arguments which have been made to the Government by the various interests, including labor interests, have convinced the Government of the defectiveness, from a practical standpoint, of the Commissioner's bill. Entirely apart from the schedules of benefits and other features of the bill which might be the subject of an issue between employers and workmen, there is a large field of administrative and actuarial detail which it is possible to deal with on a non-contentious basis.

* * * * *

A decision of considerable interest to those who are making a study of immigrant regulations was recently delivered in the British Columbia Supreme Court, it being held, among other things, that a requirement under an immigration law that the immigrant shall have on arrival a stated sum of money in his own right, does not alone imply that the money shall be in his actual and personal possession, but would be satisfied by his having the money on deposit in a Canadian bank. This will, to a certain extent, mitigate the present unpleasant necessity of compelling immigrants "to stand and deliver" before being allowed to land in Canada.

* * * * *

In a recent case in the Ontario Supreme Court, Judge Middleton rendered the following important judgment, namely, that it is an offence under the Alien Labour Act (Revised Statutes of Canada, 1906, chapter 97), for a subsidiary company incorporated under Ontario law, but operating under the control of a foreign company with headquarters in the United States, to solicit the bringing into Canada of an American citizen to take charge of its fruit commission business as manager.—Rex v. Gamble-Robertson Fruit Co., Limited.—15, D.L.R. 145.

COMPENSATION FOR ALL.

"Bill's going to sue the company for damages."

"Why, what did they do to him?"

"They blew the quittin' whistle when 'e was carryin' a 'eavy piece of iron, and 'e dropped it on 'is foot."

TRUTH AND STATISTICIANS.

An old darky was convinced that a bill rendered him by his butcher was not correct. He complained to the butcher, who said, "Sam, figures don't lie."

"Ah knows dat," said Sam, "but liars do figger."—*The Spokesman.*

SAFETY

Industrial Canada will be glad to receive items of news for this page from manufacturers who believe in "Safety First."

PRECAUTION AGAINST FREEZING OF FIRE APPARATUS.

1. Examine tanks and all pipes, fittings and valves, whether for steam heating, general water service, or fire protection. See that none are frozen or have been frozen, and that they are all in operative condition, and where there is any liability of freezing, arrange the necessary protection.

2. Examine carefully and provide suitable boxing around any pipe lines which may be in an exposed location (either between ground and first floor, between buildings, or near windows, doors, etc.). Make frequent tests during the winter of such sprinkler systems in order to make sure the piping is not frozen.

3. See that all valves are open that should be open, and try water outlets to ascertain if all pipes are free and ready for service.

4. See that extra sprinklers are on hand in case of need to replace frozen or melted heads.

5. Be sure that your engineer is fully posted as to the purpose and intention of every valve and pipe.

6. Try your pumps and see that they are in proper working order.

7. Test all of the hydrants and indicator posts, and see that they drain properly.

8. Instruct the night watchman thoroughly in the use of all fire apparatus and the operation of all valves.

9. Examine the end of suction pipe to see that leaves or other refuse matter have not clogged up the holes in the strainer. We have had cases reported by our inspectors where the capacity of the pump has been greatly reduced by this means.

10. We take occasion to call your attention to the liability of freezing of water in casks and pails in cold buildings, and suggest that you take measures of prevention, at the same time avoiding danger of water damage.

11. Chemical extinguishers should be emptied and recharged to insure their being in perfect working order.—*Safety Engineering.*

During the year 1913 the number of trespassers killed on the Canadian Pacific Railway Company's lines east of Port Arthur totalled 86. We have not the figures, but it is safe to say that there were an additional 86 injured, many of them no doubt seriously maimed for life.

The Company is endeavoring in every way possible to eliminate this trespassing, but it seems hard to make people realize the risk they run in walking the track, no matter for how short a distance.

In its fight for the lives of those people who, either in ignorance or from force of habit, use the railway as a highway, the Company has frequently summoned them to court. They have been fined for "trespassing" and will probably think twice before again undertaking to walk on the right-of-way, but the main idea which is the prevention of personal injury is apparently lost sight of. The Company cannot possibly have any other object in view, as the fines do not go into its treasury.

There are a great many employers who thoroughly realize the risk a man runs when he walks on the railway tracks, and are doing their utmost to co-operate with the railway in this "Safety First" movement, but there are many who take umbrage against the Company and consider themselves unfairly treated if one of their employees is summoned to court and fined "two dollars and costs."

On account of the large extent of the property owned by the Company, it is sometimes forgotten that it is private property.

The Railway Company needs the co-operation of factory owners, who should talk the matter over with their employees and assist in the struggle to save the lives of the "trespassers" who are killed or injured each year on the C. P. R.'s eastern lines.

The Safety League has begun its educational campaign along street traffic lines, and will spend a considerable amount of money advancing "Safety First" principles. As the League's funds are entirely a matter of public subscription, and the movement concerns every man, woman and child in the Province, everyone can assist in the work.

The proposed "Workmen's Compensation Act" has been a much discussed question, and the discussion is by no means ended; but many of the large industrial concerns are forestalling compensation by installing safety devices and forming safety committees among their men. This is only logical and human, for while no employer will have his men maimed if he can prevent it, neither does he want a long list of men on his compensation payroll. On the other hand, no workman would prefer a life of maimed compensation to full pay and a whole body. It is suggested that manufacturers and others interested get in touch with the Ontario Safety League, and learn what has been accomplished in the United States.

The present offices of the League are at 34 Victoria Street, Toronto. Telephone Main 6222.



Highways Bill: "Try de Upper House agin? Yes, and get trun out agin!"—Toronto World.

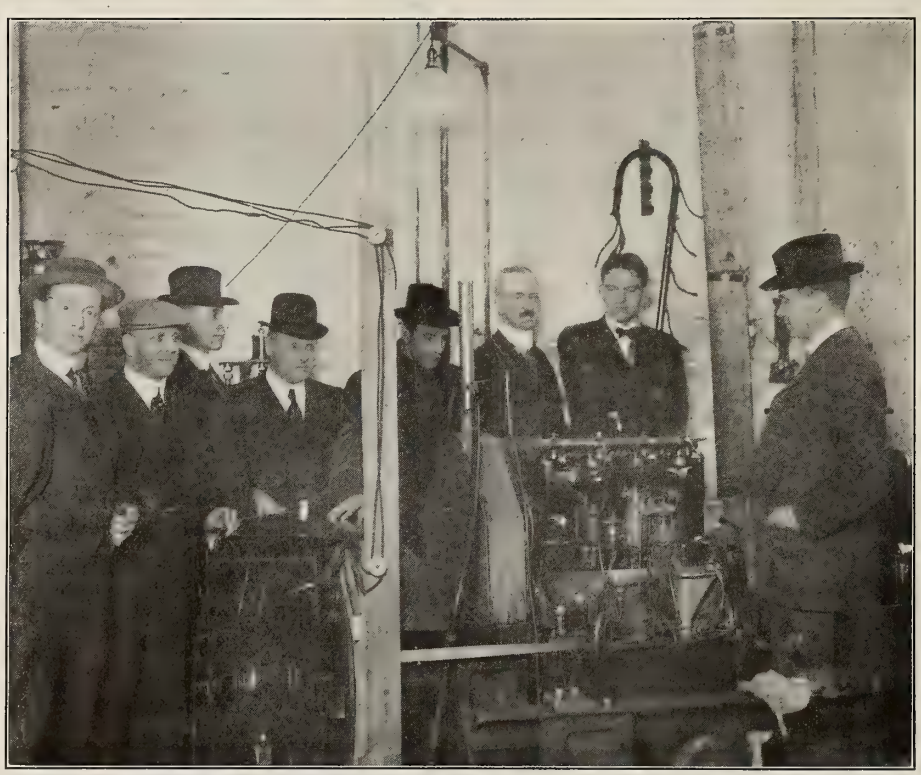
CANADIAN GOODS IN SOUTH AMERICA

Trade Commissioner Reports that Trade Opportunities are Numerous

THE Manitoba Branch of the Canadian Manufacturers Association had a visit from Canada's Trade Commissioner to South America, Mr. H. R. Poussette, recently.

During his stay in Winnipeg he called upon and saw a good many of the manufacturers. It was interesting to learn from him that goods "Made in Canada" are not only frequently seen in the South American republics, but have established for Canadian manufacturers an exceedingly good name. Winnipeg has had some share in this export trade, as several of the local manufacturers have shipped their products as far south as Argentine.

During the Trade Commissioner's stay in the city, a luncheon was tendered him by a number of the members of the Branch at the Fort Garry Hotel, and Mr. Poussette gave an interesting talk on the South American Continent; of the opportunities and possibilities for trade development here. He said that he had been here so short a time that he could hardly say anything as to Winnipeg's position for competing in foreign markets, although he felt that possibly we are a little too far from the seaboard. He pointed out, however, that while Manitoba's immediate export trade may be limited, he saw no reason why manufacturers of the West should not encourage in every way possible the growth of trade relations, particularly with the South American republics, in which he was perhaps most interested, owing to his recent trip through these countries, for the special purpose of looking into the possibilities of trade development.



Start of the Recent Test of the Russell-Knight Motor in the Factory of the Russ ell Motor Car Company, Toronto. At the extreme right is General Manager Russell; next to him, Chief Engineer Evans; extreme left, Factory Manager Burt. The test was supervised by Professor H. W. Price, University of Toronto. The Company claims to have broken several world's records.

Export Trade for Canada.

"Canada needs an export trade," said Mr. Poussette, the prosperity of our domestic trade is largely dependent upon our crops. It therefore would seem to be sound to cultivate foreign markets, in order to offset a partial failure at home. Financiers say that it is the part of wisdom to so invest money as to secure a geographical distribution of capital in order to avoid depressing influences affecting the whole at one time. The same principle should equally apply to trade. Unless a depression is world-wide, it is hardly likely Canada, Australia, China, South Africa or South America would all be influenced at the same moment.

"The Dominion is in a very advantageous position, as she is possessed of enormous natural resources, abundant water-power, and she is able to profit by the mistakes of others. And in addition to this, Canada and Canadians are well regarded abroad. A good name is everything, and it is largely in the hands of our exporters to make or mar ours, particularly as it applies to those people who are at a distance. British traders have built up a magnificent reputation for themselves, which confers an advantage upon Canadians; still, the latter are quite competent to make one for themselves equally good, and it is my firm belief that they will do so. The rules of success are simple. The first and foremost, of course, is ability to compete in price, but assuming that, the two on which all others can be hung are fair dealing and the closest possible attention to detail.

What we Require.

"Before the Dominion can attain to full success in the South American markets, it will be necessary to have more adequate steamship connections; these are sure to come in time, just as they have with other countries. Of course Canada is not without shipping facilities, as the port of New York offers these, but you can understand that it would be more satisfactory to have them through one of our own ports, and one may be sure that they will materialize when the trade warrants."

It afforded those present a great deal of pleasure to have Mr. R. S. Gourlay, the Association's President of last year, come in during the luncheon. Asked to say a few words, Mr. Gourlay made a very stirring appeal to local manufacturers to stimulate and support in every way possible the growth of Canada's export trade, pointing out that if Canada ever intended to take her place with the great commercial nations, she must give more attention to her export trade relations.

NEW CATALOGUES RECEIVED.

Canadian General Electric Co.—Electrical Fans.
Canada Machinery Corporation.—Woodworking Machinery.
Northern Crane Works.—Electric Cranes.
Southam Press.—Building Illustration.
Standard Paint Company.—Roofing.

THE FISHERIES OF CANADA.

From the Report of the Minister of Marine and Fisheries for the Year Ending March 31st, 1913.

To say that Canada possesses the most extensive fisheries in the world is no exaggeration; moreover, it is safe to add that the waters in and around Canada contain the principal commercial food fishes in greater abundance than the waters of any other part of the world. The extraordinary fertility of what may be called our own waters is abundantly proved by the fact that, apart from salmon, all the lobsters, herring, mackerel and sardines, nearly all the haddock, and many of the cod, hake, and pollock landed in Canada are taken from within our territorial waters.

The coast line of the Atlantic provinces, from the Bay of Fundy to the Straits of Belle Isle, without taking into account the lesser bays and indentations, measures over five thousand miles; and along this great stretch are to be found innumerable natural harbors and coves, in many of which valuable fish are taken in considerable quantities with little effort.

On the Pacific coast, the province of British Columbia, owing to its immense number of islands, bays and fiords, which form safe and easily accessible harbors, has a sea-washed shore of seven thousand miles.

Along this shore and within the limits of the territorial waters, there are fish and mammals in greater abundance, probably, than anywhere else in the whole world.

Value of the Fisheries.

The total marketed value of all kinds of fish, fish products and marine animals taken by Canadian fishermen, from the sea and the inland lakes and rivers, during the fiscal year ended March 31, 1913, amounted to $33,389,464.

This total falls short of that for the preceding year by $1,278,408. It has to be pointed out, however, that last year's total was $4,702,439 greater than any other previous total, so that the result for the year under review is substantially greater than that for any year other than 1912-13.

To the total the sea fisheries contributed $29,315,772, and the inland fisheries $4,073,692.

These results were produced by 65,081 fishermen, who manned 1,669 vessels and tugs, and 34,501 boats, together with 23,327 workers who were employed on shore in the various canneries, fish-houses, etc., preparing the fish for market.

In the course of the year the number of boats using gasoline engines, as a means of propulsion, was raised to 5,911 by the addition of 331.

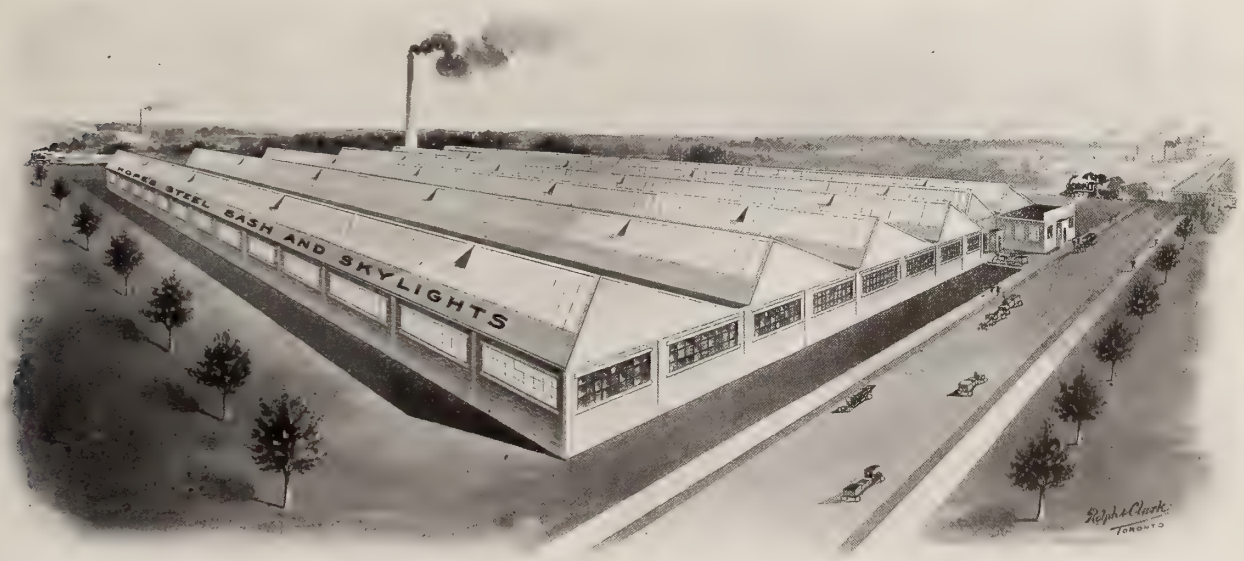
The estimated total capital invested in the fisheries amounted to $24,388,459. Of this sum $20,442,714 was invested in connection with the sea fisheries, and $3,945,745 in connection with the inland fisheries. Of the total $7,744,038 represents the value of vessels and boats, while $16,644,421 stands for the value of fishing gear, canneries, fish-houses and other fixtures necessary to the carrying on of the industry.

W. V. DAWSON, LIMITED.

There recently appeared in the *Canada Gazette* and in the columns of *The Financial Times* a notice of incorporation of W. V. Dawson, Limited. This company was incorporated by federal letters patent in October last with an authorized capital of $300,000 for the purpose of acquiring and carrying on the business as merchants and importers carried on in Montreal, Toronto, Winnipeg and elsewhere by the commercial firm of W. V. Dawson & Co., and also for the purpose of acquiring the business of the Manufacturing Stationers Company.

Since the issue of the letters patent both these undertakings have been acquired by the new company.

The business of W. V. Dawson & Company is one of the oldest established businesses in the wholesale stationery line in the Dominion of Canada, and was founded many years ago by Mr. B. Dawson, who was succeeded by his son, Mr. William V. Dawson, and he, some years later, associated with him his sons, Ernest W. Dawson and Harold G. Dawson, under the firm name of W. V. Dawson & Co.



HENRY HOPE AND SONS AT PETERBOROUGH.

On the first of March, the splendid new steel sash factory of Messrs. Henry Hope and Sons, of Canada, Limited, at Peterborough, was ready for business. Its dimensions are 200 feet by 150 feet, and it is one of the most up to date plants in America. All the machinery has been specially designed for the manufacture of steel sash, including straightening by hydraulic pressure.

By reducing the number of processes by this special machinery, the cost is lowered and delivery is much more prompt.

CANADIAN BUILDING DECLINES.

One of the most apparent results of the financial depression was the slowing down of the building industry during 1913. The following tables indicate the respective gains and losses:

East.

	12 Mos., 1913	12 Mos., 192	Inc.	%
Berlin	$647,571	$834,213	*$186,742	22.3
Brantford	1,015,886	1,167,105	*151,219	12.9
Chatham	338,310	201,591	136,719	67.8
Guelph	357,335	388,499	*31,164	8.0
Halifax	835,850	589,775	246,075	41.7
Hamilton	5,110,000	5,491,800	*381,800	7.0
London	1,789,920	1,136,108	653,812	57.5
Maisonneuve	2,454,923	2,685,828	*230,905	8.6
Montreal	27,032,097	19,408,690	7,623,407	39.2
North Bay	492,940	462,675	30,265	6.5
Ottawa	3,991,380	3,621,850	369,530	10.2
Outremont	1,819,000	1,582,000	237,000	14.9
Peterborough	488,540	465,905	22,635	4.8
Port Arthur	1,935,185	2,494,179	*558,994	22.4
Preston	400,055	337,160	62,895	18.6
Quebec	1,929,781	933,002	996,779	106.8
St. Catharines	759,478	811,335	*51,857	6.3
St. John	2,380,660	566,200	1,814,460	320.4
St. Thomas	154,471	89,946	64,525	71.7
Stratford	334,085	439,496	*105,411	24.0
Sydney	321,198	656,111	*334,913	51.0
Toronto	27,038,624	27,401,761	*363,137	1.3
Welland	611,157	469,744	141,413	30.1
Westmount	2,009,544	1,824,369	185,175	10.2
Windsor	1,148,975	988,063	160,912	16.4

West.

Calgary	8,619,153	20,394,220	*11,775,067	57.6
Edmonton	9,242,450	14,446,819	*5,204,369	36.0
Lethbridge	504,954	1,358,250	*843,296	62.0
Medicine Hat	3,851,572	2,836,219	1,015,353	40.0
Moose Jaw	4,225,000	5,275,797	*1,050,797	19.9
N. Battleford	850,195	896,970	*46,775	5.2
N. Westminster	958,975	1,634,518	*675,543	41.3
Prince Albert	1,380,290	2,042,450	*662,160	32.4
Red Deer	149,250	389,015	*239,765	61.6
Regina	4,018,305	8,047,309	*4,029,004	50.0
Saskatoon	2,633,845	7,640,530	*5,006,685	65.6
St. Boniface	1,038,840	1,251,512	*212,672	16.9
Swift Current	1,018,308	791,014	227,294	28.7
Yorkton	437,777	735,966	*298,189	40.5
Vancouver	10,423,197	19,428,432	*9,005,235	46.3
Weyburn	177,400	766,660	*589,260	76.5
Winnipeg	18,621,650	20,595,750	*1,942,100	9.6

*Decrease.

CANORA BOARD OF TRADE ISSUES NEW BOOKLET.

The Board of Trade of Canora, Saskatchewan, has just issued a very handsome folder, portraying various features of growth of the town of Canora and giving details regarding the splendid opportunities to be found in the town and surrounding district, and shows the advantages of Canora as the coming railway and distributing centre of Northeastern Saskatchewan. Canora is one of the very few western towns that is at present carrying on an active campaign, by advertising in financial and industrial journals, with intent to interest wholesale and distributing houses, by their offer of free sites, etc. A copy of this folder can be obtained by addressing F. O. Larson, Industrial Commissioner, at his Winnipeg office, 910 Somerset Block.

USES OF STRAW.

A process for obtaining and preparing for spinning and weaving purposes the vegetable fibres contained in straw, grasses, and the like, has been mentioned recently in despatches by Mr. C. F. Just, Canadian Trade Commissioner at Hamburg, Germany. This process has been patented by Gesellschaft für Verdelung und Verwertung von Faserstoffen, 4 Am Kupfergraben, Berlin, Germany. An article which appeared in the December issue of INDUSTRIAL CANADA described how flax was being treated by this process with good results.

NEW MANUFACTURING COMPANIES.

The following companies have been incorporated for manufacturing purposes:

	Capital.
Viger-Foster Valve Co., Ltd., Montreal, Que.	$250,000
H. C. Red Label Chemical Co. of Canada, Ltd., Montreal, Que.	250,000
Gibbons-Kemp Co., Ltd., London, Ont.	40,000
The North Star Powder Co., Ltd., Ottawa, Ont.	1,000,000
Modern Foundry & Soil Pipe Co., Ltd., Cap de la Magdeleine, Que.	250,000
Dodd-Simpson Press, Ltd., Montreal, Que.	150,000
Taylor Portable Steel Derrick, Ltd., Toronto, Ont.	40,000
Building Products, Ltd., Toronto, Ont.	250,000
Woodworkers, Ltd., Toronto, Ont.	40,000
W. W. Carruthers, Ltd., Winnipeg, Man.	60,000
The Celtic Flax Co., Ltd., Beausejour, Que.	60,000
Central Pulp & Paper Co., Winnipeg, Man.	200,000
The J. B. Goodhue Co., Ltd., Rock Island, Que.	100,000
Little River Brick & Tile Co., Ltd., Windsor, Ont.	100,000
The L. R. Hulbert Co., Ltd., St. Catharines, Ont.	40,000
Fox Chain Co., Ltd., Hamilton, Ont.	200,000
Beaver-Acetylene Co., Ltd., Toronto, Ont.	40,000
The Canadian Sewer Pipe & Clay Products Co., Ltd., Hamilton, Ont.	150,000
The Willys-Overland of Can., Ltd., Hamilton, Ont.	500,000
Mickelson Drug & Chemical Co., Ltd., Winnipeg, Man.	100,000
Keystone Electric Co., Ltd., Hamilton, Ont.	75,000
Maritime Knitting Co., Ltd., Montreal, Que.	49,000
B. J. Johnson Soap Co., Ltd., Toronto, Ont.	100,000
Beeson Non-Skid Tire Band Co., Ltd., Ford, Ont.	40,000
The Beam Bros. Mfg. Co., Ltd., Waterloo, Ont.	40,000
The Ante-Fired Clay Products Co., Ltd., London, Ont.	250,000
The Clauss Shear Co., Ltd., Toronto, Ont.	40,000
The Murray Harbour Canning Co., Ltd., Murray Harbour, P.E.I.	100,000
The Bingham Pneumatic Wheel Co., Ltd., Regina, Sask.	50,000
Maritime Mausoleum Co., Ltd., Halifax, N.S.	500,000
McLauthlin Elevators, Ltd., Montreal, Que.	50,000
Chapleau Waggon & Auto, Ltd., Montreal, Que.	100,000
Canadian Baby Car Co., Ltd., Montreal, Que.	300,000
The Uxbridge Piano Co., Ltd., Uxbridge, Ont.	40,000
Seelye Combination Axe & Tool Co., Ltd., Sault Ste. Marie, Ont.	40,000
Victoria Iron Ore Co., Ltd., Toronto, Ont.	100,000
Security Rubber & Supply Co., Ltd., Winnipeg, Man.	300,000
The Ontario Tire & Rubber Co., Ltd., Welland, Ont.	750,000
The McGeough Mfg. Co., Ltd., Toronto, Ont.	150,000
The Stoness Anglin Gilbert Mica Mining Co., Ltd., Kingston, Ont.	90,000

The naked hills lie wanton to the breeze,
The fields are nude, the groves unfrocked;
Bare are the shivering limbs of shameless trees;
What wonder is it that the corn was shocked?

HYDRO

—THE COST-CUTTER
—THE "HANDY" POWER

¶ The more thorough the analysis of factory costs, the more brightly does the case shine for Hydro. Here is the one power that absolutely fits almost any conceivable manufacturing or marketing condition.

¶ Do you wish to make any addition to your plant to take quick care of an increased demand? Hydro individual drive motors are ready for use as fast as you can roll the added machines into place. No overloaded steam plant or an "auxiliary" to worry about. No readjustments of shafting.

¶ Is the demand for some goods intermittent or unsteady? Again, the handy individual drive motors with Hydro power are available only just when and as long as needed. No power wasted in driving idle wheels and shafting.

¶ The cleanly, economical, flexible Hydro power is helping greatly to solve manufacturing problems under present day conditions. It enables users to meet rapid changes in policy, in demand, in competition.

Hydro power experts are ready to give you facts and figures on your power problem that may interest you mightily. Why not ask us for the facts and figures fitting YOUR case?

Toronto Hydro-Electric System

226 YONGE PHONE ADELAIDE 2120



MADE IN CANADA

Canadian Hart Wheels

CUT FASTER LAST LONGER

Than any other wheels on the market

Tell us the service you want performed and we will supply you with an abraser that will save you time, money and worry.

Send for one of our catalogues and tell us your troubles. We do the rest. :: :: :: ::

CANADIAN HART WHEELS LIMITED

450 BARTON ST. EAST

Hamilton :: :: :: Ontario

SUSPENDER FACTORY FOR ST. JOHN.

Hon. S. O. Bigney, of Attleboro, Mass., recently visited St. John, N.B., to form a company to take over the Canadian patents and manufacture in this city a new type of suspenders which are now being manufactured in Attleboro for the American market If the company is organized, it will mean the employment of a large number of operatives and add another to the many lines of goods turned out from factories in St. John. T. McAvity & Sons hope to be in a position to let the contract for their big iron and brass manufacturing plant early in the spring.

CONDENSED ADVERTISING

UPSETTING AND FORGING MACHINE.

The Sudbury Construction & Machinery Company, Limited, Sudbury, Ontario, have an inch-and-a-half upsetting and forging machine they require for their own use about five hours per day. They wish to run this machine day and night, and invite correspondence from users of forgings who are looking for an interesting proposition.

WAREHOUSE SPACE TO LET.

Two ground floors, each 40 x 60 feet, stone building, St. Catharines; side and front entrances; suitable for storage or light manufacturing. Apply Chas. H. Jagger, 90 James St., St. Catharines, Ont.

FOR SALE.

One second-hand Robb engine, 35 horse-power, and one second-hand Monarch boiler, 35 horse-power. Address Messenett & McDougall, St. George, New Brunswick.

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

968. **Flour.**—A Cape Town firm of dealers in flour is prepared to take up agency for Cape Province West, or purchase direct, Canadian flour. Correspondence and quotations requested.

969. **Plywood.**—A Swiss firm desires the names and addresses of Canadian firms from whom they could buy plywood.

970. **Church Furniture.**—A London company would like to receive catalogues and quotations from Canadian manufacturers of church furniture, which is required for direct shipment to South Africa.

971. **Metalcrete.**—A Liverpool firm desires to get into touch with the United Kingdom agents of a Canadian firm manufacturing "Metalcrete," a material used to give a hard finish to concrete floors.

972. **Timber.**—A Glasgow firm is desirous of importing hardwood planks, spruce, pine and hemlock. Quotations wanted, stating full terms and shipping ports.

973. **Motor Cars.**—A leading firm in Georgetown, British Guiana, would take up the agency for a Canadian car, and invites correspondence.

974. **Hosiery.**—Canadian manufacturers of hosiery are invited to correspond with a good firm of commission merchants in Havana.

975. **Leather.**—Canadian exporters of leather desiring to appoint a selling agent for Cuba should correspond with firm in Havana.

976. **Pine and Building Lumber.**—A London firm wishes to get into touch with Canadian exporters of pine and other building lumber.

977. **Asbestos Fibre.**—A Nottingham firm of mill furnishers, etc., who are also contracters to H. M. Government, wishes to be placed in touch with Canadian exporters of asbestos fibre for the manufacture of boiler and steam-pipe coverings

978. **Mica.**—A company in Vienna would be pleased to hear from Canadian producers of mica, both muscovite and amber.

979. **Agency.**—A correspondent in Colon, Panama, giving excellent references, is prepared to act as resident agent for Canadian exporters seeking business in that country.

980. **Agency.**—A correspondent in London, England, desires to be placed in touch with Canadian manufacturers seeking a resident agent prepared to act as either purchasing or selling agent.

981. **Agency.**—A correspondent in Vienna, Austria, wishes to be placed in touch with Canadian exporters to that country, particularly machinery and canned goods.

WHICH SHALL IT BE?

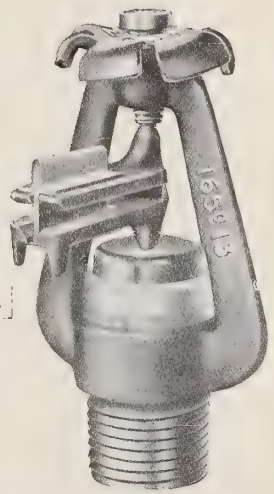
The ———— Manufacturing Company's plant has been totally destroyed. A heavy blow because it is their extremely busy season.

A fire started in the plant of the ———— Manufacturing Company, but was quickly extinguished by their Automatic Sprinkling Apparatus.



Let us furnish you with estimates on equipping your old or new plant with

MANUFACTURERS' AUTOMATIC SPRINKLERS



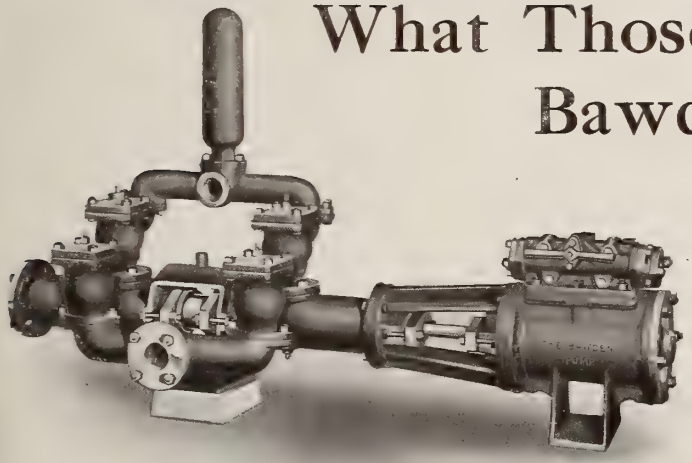
Besides being a safeguard for your plant, they will enable you to effect a saving as much as 80% on your insurance premiums.



The General Fire Equipment Company Limited

72 QUEEN ST. EAST TORONTO, CANADA

What Those Who Know Say Of Bawden Pumps



A User:
"I would never know I had a pump, as it needs no attention."

An Engineer Who Has Specified Them on a Number of Large Jobs:
"It is the best pump I ever saw."

An Engineer Who Made Tests:
"I don't know another pump made that will stand those tests like that pump."

A Large Manufacturer:
"It is the best made pump I ever saw and a credit to Canada."

A Contractor Who Uses Them on all His Jobs:
"I put them in, they start right off, and I never have a complaint, so they must be good."

A Prospective Customer:
"I called up the users you gave me, and will take your pump."

Guaranteed Equal to any Pump in the World.

Write for Catalogue and Calendar.

And learn why Bawden Pumps cannot Short Stroke or Bang.

¶ The Bawden Pumps are operated by the Bawden Patent Balanced Steam Moved Piston Valves, which insures a Full Stroke of the piston under all conditions. There are no outside rods to stick or get out of adjustment.

¶ The water valves have no screwed seats, but are driven in on a special taper and are held solid by brass stoppers through the covers, all parts made on jigs and face machined, so no sheet rubber packing is required.

Quebec Agents: H. L. Peiler & Co., 380 St. James St., Montreal

The Bawden Machine Co., Limited 125-137 Sterling Rd., TORONTO, CANADA

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of January, 1914.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload lots; L.C.L., less than carload lots.)

C.R.C.	R.R. No.	Effective.	Description.
Canadian Pacific Railway.			
E 2743 cancels E 2732	E 2363 cancels E 2351	Jan. 22-14	Cartage charges at C.P. stations. Reduction.
Sup. 7 E 2560	Sup. 7 E 2167	Feb. 20-14	Import freight St. John and W. St. John to C.P. stations. Reduction.
Sup. 4 E 2491	Sup. 4 E 2091	Feb. 23-14	Commodities C. P. stations to Boston, New York, etc., for export. Advance. Reduction.
Sup. 8 E 1691	Sup. 8 E 1278	Feb. 23-14	Class rates, C. P. stations to St. John and Halifax for export. Advance. Reduction.
Sup. 12 E 2189	Sup. 12 E 1785	Feb. 23-14	Commodities to St. John and Halifax for export. Reduction.
Sup. 8 E 1665	Sup. 8 E 1252	Feb. 23-14	Class rates, C. P. stations to Boston for export. Advance. Reduction.
Sup. 7 E 2646	Sup. 7 E 2262	Feb. 11-14 (8) Mar. 10-14 (A)	Local switching and interswitching at C.P. stations. Advance. Reduction.
E 2751 cancels E 2430 E 2555	E 2372 cancels E 2039 E 2162	Mar. 16-14	Weighing of carload freight.
E 2753 cancels E 2567	E 2374 cancels E 2175	April 2-14	Class and commodity rates, stations in Eastern Canada to Oriental ports, via Vancouver. Reduction. Advance.
E 2757	E 2378	Feb. 17-14	Knit underwear, C. L. Coaticook, Que., ports in Japan and China, via Vancouver. New rate.
Sup. 25 E 2342	Sup. 25 E 1942	Feb. 17-14	Commodities points in New Brunswick to stations on C.P.R. Reduction.
E 2759	E 2380	Mar. 20-14	Charges for detention of refrigerator cars. Advance.
Sup. 9 E 2643	Sup. 9 E 2259	Feb. 18-14	Pig iron C.L. Montreal, Parry Sound, and Hamilton to various points. Reduction.
Sup. 26 E 2342	Sup. 26 E 1942	Feb. 26-14	Commodities between C. P. stations. Reduction.
E 2761 cancels E 1748	E 2382 cancels E 1386	Mar. 26-14	Class rates between C. P. stations, Montreal and east and south thereof. Reduction. Advance.
Sup. 24 E 2342	Sup. 24 E 1942	Feb. 7-14	Commodities between points in Canada.
Sup. 8 E 2643	Sup. 8 E 2259	Feb. 2-14	Pig iron, c.l., between points in Canada.
Sup. 2 E 2515	Sup. 2 E 2119	Feb. 4-14	Stop-off on lumber at Ottawa.
Sup. 4 E 2518	Sup. 4 E 2122	Mar. 10-14	Class rates. C. P. stations to western U. S. points.
Sup. 7 E 1322	Sup. 7 E 904	Feb 18-14	Iron commodities between C P. stations.
Sup. 9 E 1285	Sup. 9 E 867	Feb. 16-14	Iron commodities from Montreal and Montreal points to points West.
Sup. 43 E 2559	Sup. 43 E 2166	Feb. 10-14	Building material between C. P. stations.
Sup. 9 E 2713	Sup. 9 E 2330	Various dates.	Commodities between C. P. stations.
Grand Trunk Railway.			
Sup. 10 E 2783	Sup. 10 C. I. 146	Jan. 3-14	Pig iron, c.l., between G. T. stations.
Sup. 4 E 2855	Sup. 4 C. Y. 31	Feb. 2-14	Iron and steel castings, St. Catharines to points east.
Sup. 4 E 2758	Sup. 4 C.U. 75	Mar. 6-14	Commodities from Buffalo, Black Rock and Susp. Bridge to points in Canada.
Sup. 11 E 2783	Sup. 11 C. I. 145	Feb. 6-14	Pig iron, c.l., Port Colborne, Ont., to Almonte, Ont.
E 2867	C. I. 152	Jan. 26-14	Iron pipe fittings and structural iron, Sarnia to points on G. T. R. and connecting lines. New rates.
Sup. 6 E 2855	Sup. 6 C.Y. 31	Mar. 13-14	Commodities between G.T. stations. Advance. Reduction.
Sup. 52 E 150	Sup. 52 G.B.Y. 5	Feb. 16-14	Iron commodities between G.T. stations. Reduction.
Canadian Northern Railway.			
Sup. 2 E 354	Sup. 2 E 404	Jan. 24-14	Commodities C.N.O and B. of Q. stations to points on Algoma Eastern Ry.
Michigan Central Railroad.			
Sup. 22 1351	Sup. 22 7766	Feb. 25-14	Iron and steel articles to points in Canada. Advance. Reduction.
Sup. 26 1751	Sup. 26 8764	Feb. 20	Commodities, Buffalo, Black Rock and Suspension Bridge, N.Y., to points in Canada.
Sup. 12 1918	Sup. 12 9183	Feb. 25-14	Class and commodity rates, M. C. stations in Canada to points in U. S.
Sup. 15 1966	Sup. 15 9251	Feb. 28-14	Iron and steel articles, points in U. S. to stations in Canada.
Michigan Central Railroad.			
Sup. 27 1751	Sup. 27 8764	Mar. 10-14	Commodities Buffalo, Black Rock and Suspension Bridge, N.Y., to points in Canada. Advance. Reduction.
Sup. 4 2049	Sup. 4 9353	Mar. 20-14	Commodities between stations. on M.C.R.R in Canada and stations on connecting lines in Canada. Advance. Reduction.

A hotel cashier, after paying a lot of food and liquor and tobacco bills, returned to the hotel drunk.

"All those people treated me," he explained, "when I handed them their checks."

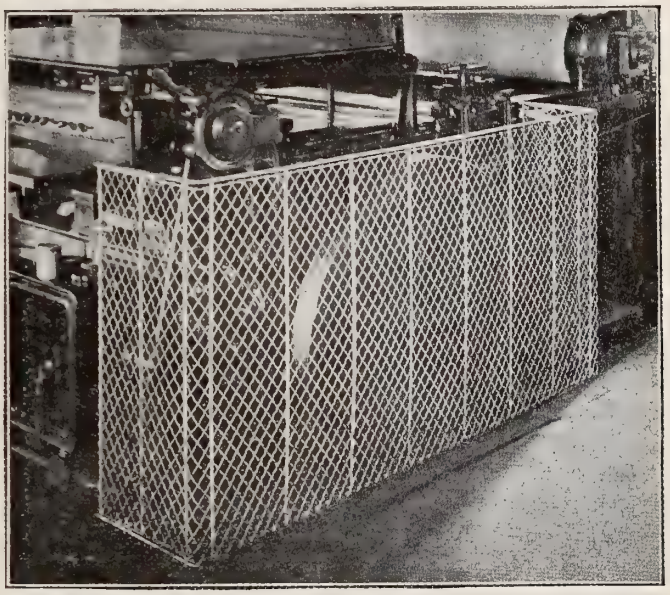
"Well, well," said the proprietor, shocked, "is it possible that none of my creditors are temperance people?"

"Some of them are," the cashier admitted; "but *their* checks I sent to them by mail."

SAFETY FIRST

THESE CUTS ARE SELF-EXPLANATORY









WE MAKE THEM ALL

Interested manufacturers are invited to correspond with

THE GEO. B. MEADOWS, TORONTO WIRE, IRON AND BRASS WORKS CO., LIMITED

479 West Wellington Street, TORONTO

AMONG THE INDUSTRIES

We direct the attention of our readers to this department, which has greatly enlarged and improved. Arrangements have been made to secure interesting news of manufacturing from all parts of Canada. We shall be glad to publish items of interest to manufacturers free of charge in this department provided they should not be properly classified as advertisements. If you have interesting items please send them in.

Athabasca, Alta.

Revillon Freres are contemplating the erection of a concrete and brick construction warehouse at a cost of $40,000.

Beamsville, Ont.

Beamsville and Clinton are negotiating for a supply of Hydro-Electric power. The cost of a sub-station for Beamsville would be between $2,000 and $3,000, and it would be possible to use one station for several municipalities.

Bobcaygeon, Ont.

The British North America Bank propose to erect a branch here.

Bedford, Que.

The Excelsior Needle Company, Torrington, Conn., will erect an addition to the business plant of the Carey Needle Company recently purchased by them.

Berlin, Ont.

A factory will be erected in the near future by the Rutenber Company, manufacturers of automobile engines.

Brampton, Ont.

The Copeland-Chatterson Company, in view of the enlargement of its factory, has communicated with the Council asking for certain exemptions and considerations.

Brantford.

James E. Walsh, general manager of the Power Plant Supply Company, Detroit, and representing the Canadian Crate & Supply Company, has written to the City Council of Brantford, Ontario, expressing the desire of the Company to open a plant in Canada, and requesting information relative to the industrial standing of the city. The Manufacturers' Committee of the City Council will take this up and make an endeavor to bring the factory to Brantford.

It was decided at a special meeting of the City Council on Monday to issue debentures for $70,000 for extension to Hydro system, to provide for the distribution of power through the city.

A new plant will be erected by the Brantford Ice Company to manufacture artificial ice.

Bridgeburg, Ont.

Frank Sweet, a Buffalo ironwork manufacturer, is looking for a site for a plant in which to assemble all iron he contemplates using to fulfil his contracts. He has secured large contracts in Welland and other Canadian cities.

Burford, Ont.

The flour mill of R. McCracken, which was recently destroyed by fire, will be erected at once.

Caledonia, Ont.

Operations will commence at once on the Laurentia Milk Company's plant which was destroyed by fire a few weeks ago.

AN EXAMPLE OF MODERN FACTORY CONSTRUCTION



New Factory of Telfer Brothers, Toronto

When Telfer Brothers, Limited, biscuit manufacturers, moved from Collingwood, Ont., to Toronto, they evidently determined that the new factory which they proposed to erect would be one of the most modern in the country. This factory has just been put into operation. It consists of five stories and a basement and represents an investment of $200,000. A staff of 150 is employed, which will be increased to 300 when the factory is running at capacity.

The raw material is mixed on the top floor and descends through various processes until it emerges as a finished product on the ground or shipping floor. One side of the factory is devoted to English methods, the other to United States methods. Before building, Mr. Telfer visited the chief biscuit factories of Great Britain and the United States.

FINE PERIOD FURNITURE

"MADE IN CANADA"

TORONTO FURNITURE CO. TORONTO, CAN. — FTC — SHOP MARK

Shop-mark

A CHINA CABINET
WILLIAM AND MARY PERIOD
IN ITALIAN WALNUT



Reproduced by courtesy of the Standard Fashion Co., New York.

IN furnishing the home it is well to keep in mind the genuine economy of selecting good furniture.

By good furniture is meant, not necessarily that which is expensive, but rather those pieces which are well designed, of tasteful style and sound construction. Such furniture bases its appeal, not upon mere cheapness, but upon lasting satisfaction, pride of ownership and the distinction it confers upon its surroundings, thereby rendering a service often out of proportion to the price paid for it.

Modern or period designs made by the Toronto Furniture Company are marked by correct style, conscientious workmanship and genuine woods. Casual examination will reveal the substantial difference which exists between our furniture, thoughtfully designed and built, and the showy, commercial types made to sell.

As a means of identification, and for your protection, our shop-mark is imbedded in each piece. Look for it the same as you would for the signature on fine china or silver.

Representative dealers in the principal towns and cities carry our furniture, or would be pleased to submit a portfolio of photographic views of our complete line for your approval and selection.

TORONTO FURNITURE CO., LIMITED
Offices and Factory: DUFFERIN ST., TORONTO
MEMBERS OF THE HOME MARKETS ASSOCIATION

Calgary, Alta.

The City Council are erecting an industrial housing building at a cost of $250,000. A site has been purchased, plans are in progress and excavating will start at once.

At a meeting of the Railway and New Industries Committees of the City Council last week, another step in the direction of establishing the industrial building for the accommodation of small manufacturers in Calgary was taken and that body decided to recommend to the City Council that the purchase of the site offered by the Berkinshaw Syndicate on Tenth Avenue, between Seventh and Eighth Streets West, for $27,000 be completed, and that the city commissioners be instructed to arrange as soon as possible for the excavation of the basement. Plans will be drawn under the supervision of City Engineer Craig.

The Lake of the Woods Milling Company, it is stated, has secured a site in Calgary on which they will erect buildings and install machinery at a cost of $200,000 and at the start will manufacture 1,500 barrels a day. It is also stated that the Western Canada Milling Company of Winnipeg is about to let a contract for enlarging the capacity of their present mill in Calgary to 1,200 barrels.

A $500,000 theatre will be erected on Eighth Avenue, for Starland Ltd., Starland Bldg., Winnipeg. Tenders will be called shortly.

A theatre is to be constructed for the Starland Amusement Company, operating in Winnipeg and many cities of the United States. The cost of the building alone will be $200,000.

Camrose, Alta.

A site has been secured near the C.P.R. station by the Imperial Oil Company, Edmonton.

Cobalt, Ont.

Under instructions from M. J. O'Brien, mine owner and contractor, Sutcliffe & Neelands, civil engineers of New Liskeard, put men at work to get information concerning the possibility of developing the water-power on the Quinze River, near the head of Lake Temiskaming. Mr. Neelands believes that the Quinze River has power enough to develop 270 horsepower, and thinks this would be sufficient to electrify the T. & N. O. railway and supply heat, power and light for all the industries of Temiskaming.

THE BOOTH-COULTER COPPER & BRASS COMPANY, LTD.
SHEETS TUBES COPPER & BRASS AND RODS
SPECIAL SIZES CUT TO ORDER FROM LARGE STOCK—PROMPT SHIPMENT
115-121 SUMACH STREET - - - TORONTO, CANADA

For Furnace and Cupola Service
MADE IN Sirocco TRADE MARK. CANADA
Type "P" Special Steel Pressure Blowers



The Ford Motor Company, Limited, of Canada, have one of these fans for Oil Furnace work—It delivers 5,000 cubic feet of air per minute at **1 pound pressure.**

Sirocco type "P" Pressure Blowers produce a **non-fluctuating pressure**—are strong and rigid and are absolutely dependable for hard service. Are especially adapted for direct connection to electric motors and steam turbine—No Belts—No Gears, all the power is transmitted **directly to the fan.**

Write for bulletin No. 801—It contains valuable information about Pressure Blowers.

CANADIAN Sirocco COMPANY LIMITED
WINDSOR, ONTARIO.

SALES ENGINEERS:
CLARK T. MORSE, 301 McGill Bldg., Montreal. W. P. EDDY, 214 Donald St. Winnipeg
E. C. POWERS, 43 Victoria Street, Toronto. S. S. CLARKE, 605 2nd St., Calgary.



Fresh Air for the Factory

ORMSBY SWARTWOUT VENTILATORS

A Rotary Ventilator that Purifies the Air and Increases the Efficiency of the Workmen

Increases Output

A well-ventilated factory is a good investment. If the air is pure the workmen do better work and more of it. They work with their *heads* as well as with their *hands*. There are fewer mistakes—fewer rejected parts. That means more economical production.

Install Ventilators

Steady Service

By actual tests in factories it has been shown that the number of days lost through illness is reduced largely by the proper ventilating of a factory. An absent employee means an idle machine and a decreased output. Maximum efficiency is attained when every machine is operating to capacity.

Install Ventilators

A Simple System

For a very small expenditure a factory can be equipped with "Swartwout" ventilators which will ensure a steady supply of fresh air. The "Swartwout" is absolutely simple and absolutely efficient. It operates equally well in hot and cold weather—and it cannot get out of order.

Write to-day for descriptive booklet.

THE A. B. ORMSBY CO., LIMITED

TORONTO - WINNIPEG

Associated with THE METAL SHINGLE & SIDING CO., LTD., Montreal, Preston, Saskatoon, Calgary

"SAFETY FIRST"

THE Safety Movement is of vital importance to you. Teach your employees safety. A SAFE man will turn out more work and destroy less machinery than a careless one. Get in touch with the work. It will pay you. Avoid accidents, and prove that "an ounce of prevention is worth a pound of compensation."

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Vice-President - COL. SIR H. M. PELLATT, C.V.O., A.D.C.
Vice-President - - - - - - - JOHN C. EATON
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Secretary-Treasurer - - - - - - R. B. MORLEY

Ontario Safety League

34 Victoria Street, Toronto

TELEPHONE MAIN 6222

LOCATE IN

CANORA

Sask.

The Coming Railway and Distributing Centre of North-Eastern Saskatchewan

Canora already has three railway lines in operation and with the completion of the C. N. R. and G. T. P. in 1914 to the North, a great amount of new territory will be opened up.

FREE SITES

Low rate of assessment, cheap electrical power and soft water are offered to Distributors and Manufacturers desiring to take advantage of these facilities for reaching this vast new empire—for which Canora will be the base of supplies.

For further information address

H. M. SUTHERLAND,
Secretary,
Board of Trade.
Canora, Sask.

or

F. O. LARSEN,
Industrial Commissioner
910 Somerset Building,
Winnipeg, Man.

Edmonton, Alta.

At a cost of $300,000 Robert Moore, St. Elmo Hotel, contemplates building a new hotel on the site of the old building. It will be ten stories.

Arrangements are being made in Chicago by the Presto Heater Company of Alberta, 224 Jasper East, to start operation of a plant here for the manufacture of furnaces.

N. L. MacDonald, of the Dickson Steel & Bridge Company, has applied to the city for water. He wants to erect his buildings as soon as the city promises definitely to provide the water, and if possible the power.

A number of industries in the Manchester subdivision have applied for a water supply. Commissioner Chalmers says it would cost about $23,000 to construct a water line to the city limits, and the concerns would have to assure the city of a reserve of $75 per month.

Buildings have been erected at a cost of $33,000 by the Shoe & Leather Company. The machinery and equipment cost $6,811. There are forty vats installed, and eighteen more provided for. There are nine men at work, while if they have water at least fifty can be employed. In the harness factory which they intend starting twenty-five to fifty men will be given work.

New machinery will be required for the Great Northern Tannery Co., Limited, N. Edmonton, who propose to double the capacity of their plant.

Elora, Ont.

The factory of the Elora Textile Company was damaged by fire to the extent of $3.500.

Exshaw, Alta.

A fire occurred last week at the Canada Cement Company's Plant No. 12 and destroyed the old stock house, shipping house and sack-cleaning department. This fire will necessitate closing of the plant meantime.

Estevan, Sask.

Plans are in progress for a brick plant for the Great West Coal & Brick Company, 2nd St. Machinery is required.

Flesherton, Ont.

The water power at Priceville and the land in connection therewith was purchased by George Watson, of Flesherton, from A. D. McLeod and a sash and door factory will be built in the near future. The new firm will be Watson & Son.

Fort Frances, Ont.

Plans have been prepared for the enlargement of the factory of the Fort Frances Sash & Door Company on Victoria Ave. The estimated cost will be $4,000.

Fort William, Ont.

A site with one hundred feet frontage has been purchased by M. H. Braden & T. E. Dean for the erection of stores and offices.

Plans are in progress for a new $20,000 hall on Simpson St. for the Finnish Co-operative Society.

Fredericton, N.B.

The construction of a barrel stave factory by Prince Bros. & McLaughlin, has recently been finished. At present they are employing fourteen men and in a short time will add to their help.

633-661
EASTERN
AVENUE



ESTABLISHED
1852

The Largest Patent Leather Manufacturers
in the British Empire

A. R. CLARKE & CO., LIMITED

MONTREAL TORONTO QUEBEC

PEACE YEAR

at

Canadian National Exhibition

Complete Demonstrations in the Advancement in the
Arts of Peace in Past Century.

Best Bands
of Two
Continents.

Aug. 28th—1914—Sept. 14th

Magnificent
Oriental
Spectacle.

Address Applications for Space to
J. O. ORR,
General Manager.

ASBESTOS

WE CARRY THE LARGEST COMPLETE STOCK IN CANADA

ASBESTOS SHINGLES
ASBESTOS LUMBER
ASBESTOS MILLBOARD
ASBESTOS PAPER
ASBESTOS PACKING
ASBESTOS ROOFING
ASBESTOS PIPE COVERING
ASBESTOS CEMENT
ASBESTOS CURTAINS

CANASCO RUBBER ROOFING 1, 2 AND 3 PLY
COTTON WASTE, WHITE AND COLORED, AND WOOL WASTE
OAKUM, PLUMBERS AND NAVY
BEAVER BOARD
RAILWAY AND ENGINEERS' SUPPLIES

WE EMPLOY A LARGE STAFF OF EXPERIENCED WORKMEN AND UNDERTAKE THE COVERING OF STEAM PLANTS AND COLD STORAGE ANYWHERE IN CANADA.

CANADIAN ASBESTOS COMPANY
42 TO 48 YOUVILLE SQUARE MONTREAL MAIN 332 AND 611

ESTABLISHED 1888

McLean, Szeliski & Stone
Limited

General Insurance
Brokers and Insurance
Engineers

Managers
Fire Risk Inspection Bureau
of Canada

Sprinklered, Mill and Fireproof
Factory Risks a Specialty

Rates quoted in competition with Lloyds and Mutual Insurance for covering in absolutely first-class companies

Special REAL ESTATE Department
in charge of Realty Expert to give information and assist in locating

Factory and Business Sites

CANADA PERMANENT BUILDING
22 Toronto Street Phone Main 1265

Galt, Ont.

The plant of Shurly, Dietrich, Limited, was destroyed by fire February 6th. The loss is estimated at $200,000 to which there is insurance of less than $100,000. Orders that were in will be filled at the St. Catharines plant.

Goderich, Ont.

A site has been purchased by the Alexandra Marine and General Hospital authorities and the Council will be asked to submit a by-law granting $15,000 for building purposes.

The American Good Roads Machinery Company have had plans prepared for an addition to their plant at an estimated cost of $90,000.

Plans have been prepared for the new plant of the American Road Machinery Company of Canada, Limited, which they will erect at an estimated cost of $90,000. Much of the machinery in the old plant will be used. A galvanized iron goods plant will also be built later.

Guelph, Ont.

D. McKenzie, maker of hack saws, bench drills, engine lathes, shapers, etc. is now doing business under the name of the D. McKenzie Machinery Company.

Hamilton, Ont.

Suitable premises are being negotiated for by the Wily-Overland Company of Toledo, Ohio, with the object of extending their operations.

Extensive improvements and additions to their factory are under consideration by the Standard Underground Cable Company. The estimated cost is $150,000.

Plans are in progress by Watt & Blackwell, architects, Lister Chambers, for stores and apartments on King St. E., for Bennett & Thwaites, 11 Holton Avenue, at a cost of $120,000.

The Chadwick Brass Company are looking for a site on or near Sherman Ave. to erect a three-story plant with machine shop, plating rooms, etc.

Indian Head, Sask.

The Public Works Department will erect a forestry office at a cost of $19,000. Plans are now in progress.

Ingersoll, Ont.

William Stone, Sons & Company, Limited, Oxford St., contemplate the erection of a fertilizer factory costing $10,000.

Iroquois Falls, Ont.

With the exception of the generator and power house all the buildings of the Abitibi Pulp & Paper Company are now under cover. The work on the power building is being rushed and this will be finished for installation of machinery so that operation can commence early in June.

Kingston, Ont.

Tenders will be received by William Newlands & Sons, architects, Bagot St., until Feb. 28th, for the erection of a college at the corner of Russell and Thomas Sts., for the Regiopolis College Board, at a cost of $40,000.

London, Ont.

Plans are in progress for the erection of a $100,000 theatre by A. W. Brown, 374 Belleville Ave., Newark, N. J., for the Canadian Theatres Company.

Two Detroit men were in London last week conferring with P. J. Edmunds, patent attorney, concerning the establishment here of a foundry to produce a new type of grate bar. The Canada Grate & Supply Company is the name under which the new concern will operate.



EXHAUST SYSTEMS

We have equipped many of the largest establishments in Canada during the past few years, and are prepared to design and install equipment for all classes of work. We would like to have an opportunity of quoting you on any requirements in this line. Your enquiry will receive prompt attention.

Geo. W. Reed & Co., Ltd., Montreal

Maple Creek, Sask.

A factory on Jasper St. for the manufacture of all kinds of machinery and farming implements will be erected by Gilbert Hunt Manufacturing Company, at a cost of $75,000.

Markdale, Ont.

A site has been purchased for the erection of a sash and door factory by George Watson, Flesherton, Ont.

Mitchell, Ont.

The erection of a $30,000 school is proposed by the School Board. Further information can be had from the Secretary.

Montreal, Que.

The St. James Club, Dorchester and University streets, is to be entirely remodelled.

The Tuckett Tobacco Co., Limited, Hamilton, will receive tenders for a factory to cost $100,000.

The plants of the Canadian Car & Foundry Company situated in Montreal and Amherst, which were closed last year, have resumed operations.

Tenders have been received and contracts will be awarded shortly for replacing the wall of the McFarlane building, St. James and Richmond streets.

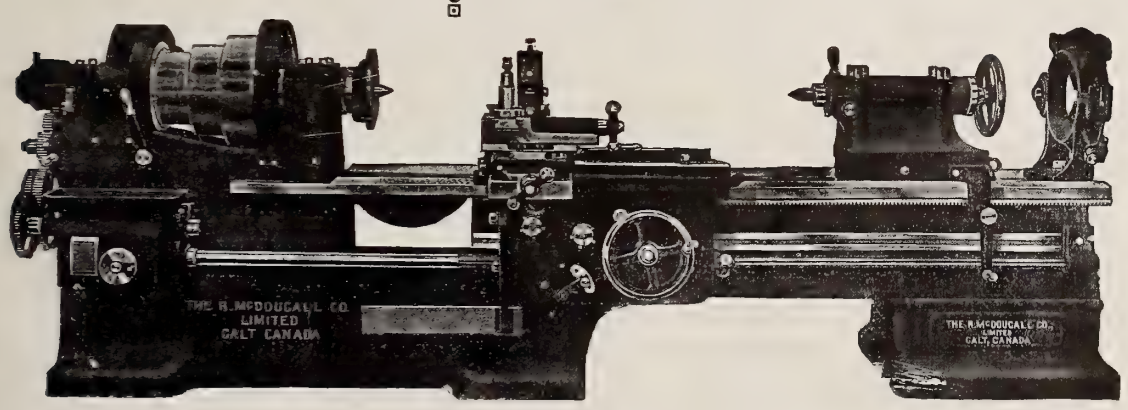
Adam Beck & Company, Jurors St., have received tenders and will shortly award contracts for alterations to their warehouse.

The Martin-Senour Co., Limited, have new plans in progress for the erection of a four-story paint factory and expect to call tenders about March 1st.

Get the Lathe that Does *The Most* Work

All other things being equal, you want the Lathes that do the most work in the shortest time. That means

McDOUGALL LATHES



Because they have extra size and strength, they are good for 30% increase over normal feed and speed. They do the most work in the least time, and are second to none in accuracy and economy.

We Like to Talk "Lathe Problems" With YOU.

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The Canadian Fairbanks-Morse Company, Ltd., Sales Agents for Canada

Showrooms: Montreal Toronto Ottawa Winnipeg Saskatoon Calgary Vancouver St. John, N.B.

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President.

ALEXANDER LAIRD, General Manager.
JOHN AIRD, Assistant General Manager.

Capital . . . $15,000,000
Rest $13,500,000

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This Bank offers unsurpassed facilities to those doing business with foreign countries. It is specially equipped for the purchase and sale of Sterling and other Foreign Exchange Drafts and Cable Transfers and for the financing of imports and exports of merchandise.

Commercial credits, Foreign Drafts, Money Orders, Travellers' Cheques and Letters of Credit issued, available in all parts of the world.

Collections effected promptly at reasonable rates.

THE ROYAL BANK OF CANADA

Incorporated 1869

Capital Authorized . . . $25,000,000
Capital Paid up $11,560,000
Reserve & Undivided Profits $13,000,000
Total Assets $180,000,000

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Branches in every Province of the DOMINION OF CANADA and in NEWFOUNDLAND; in HAVANA and throughout CUBA, Porto Rico and Dominican Republic; BAHAMAS, Nassau; BARBADOS, Bridgetown; JAMAICA, Kingston; TRINIDAD, Port of Spain and San Fernando; BRITISH HONDURAS, Belize.

LONDON, ENG., OFFICE—Princes St., E.C.

NEW YORK AGENCY — Corner William and Cedar Sts

Savings Department at All Branches

A permit has been granted to Beaudin, Besner & Demers, 1215 St. Denis Street, for alterations to their factory at a cost of $5,000.

The Jaeger's Sanitary Woollen System Co., Limited, have plans in progress for stores on St. Catherine W. Tenders will be called about March 1st.

Mr. A. Michaud, Quebec Bank Building, Montreal, is considering the erection of stores and manufacturing plant on Ontario St., at an estimated cost of $50,000.

The business of the St. Lawrence Welding Company, Limited, has been increasing so rapidly that they will have to move on May 1st next into more spacious premises at 138-140 Inspector Street, Montreal. They are opening a new branch at St. Catharines to handle shop and portable work.

The President of Price Brothers, at a recent meeting of their shareholders, stated that the installation of an additional power unit will enable them to increase considerably the capacity of the Kenogami and Jonquiere plants.

Moose Jaw, Sask.

Tenders will shortly be called for the erection of the theatre with a seating capacity of 1,500 for the Garrick Theatre Company.

Mt. Brydges, Ont.

The Union Bank of Canada (T. C. West, Mt. Brydges), propose to erect a bank and office building at a cost of $7,000

Nanaimo, B.C.

A site has been selected for the erection of the City Hall Building, estimated cost $50,000.

Napanee, Ont.

A factory will be built by the Gibbard Furniture Company at a cost of $10,000.

The erection of a condensed milk factory is being considered by the Cliff Bros. to cost $40,000.

The Town Council held a special meeting in the Council Chambers on Wednesday, Feb. 4th, to consider the inducements to be offered to Mr. Decatur representing Decbul Tools, Limited, whose plant was burned out in Montreal a few weeks ago. The company are desirous of locating in Napanee on the land south of the canning factory, and while the matter is not definitely settled, they seem willing to accept the inducements offered by the council, which do not include any cash bonus.

Niagara Falls, Ont.

A by-law will probably be submitted to the ratepayers in February to grant a free site to the Dominion Chain Co., Limited, Ellen Ave.

Ottawa, Ont.

Tenders will be called shortly by W. E. Noffke, Central Chambers, architect, for the addition of three stories to the premises of Chas. Ogilvy, Limited, Rideau and Nicholas Sts.

An application has been made to the Government by W. S. Edwards & Company, Sussex St., to have their charter amended so that they may manufacture electricity for heat, light and power purposes.

We Design and Supervise the Building of Offices Warehouses Factories and Plants for all kinds of Industries



New Montreal Offices and Warehouse of Canadian Fairbanks-Morse Co, Ltd.
Designed and Constructed Under Our Supervision

We are Engineers and Architects. For more than twenty years we have been designing Factories, Mills, Warehouses, Steam and Hydro-Electric Plants.

We are the oldest Industrial Engineering Organization doing business in Canada. Our business is entirely confined to Canada.

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No project is too large for us to undertake.

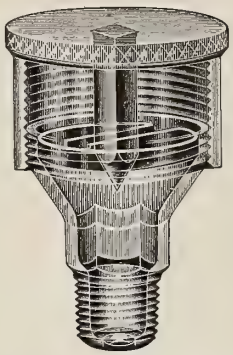
It will be to your profit to consult us when you are considering the erection of a new plant or the extension of your present one.

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Industrial Engineers and Architects

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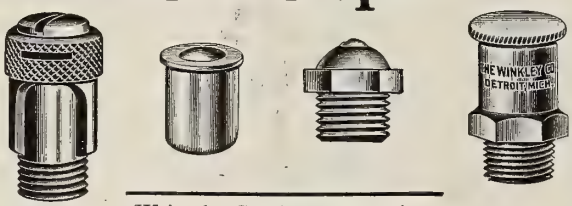
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Complete Oil Cups Line



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"Galvaduct" & "Loricated" "Conduits" HAVE NO EQUALS

Conduits Company Limited

TORONTO ***MONTREAL***

Owen Sound, Ont.

The present burning mills or rotaries of the Doric Cement Company will be exchanged for ten feet diameter burners should the extensions proposed by the company be made, and the strongest crushing machinery will be installed.

Oxford, N.S.

A number of new machines and new methods have been added to the Oxford Manufacturing Company, thus improving the products. They find it impossible to keep pace with their orders. The Oxford Furniture Company and Oxford Foundry & Machine Company are both adding new machinery.

A brick company is being organized and will commence manufacturing in the early spring.

Peterborough, Ont.

It is reported that the Canadian General Electric Company, Peterborough, contemplate the building of electric locomotives, and will expend $150,000 for that purpose.

Petrolea, Ont.

Plans are in progress for the erection of a two-story wax factory for the Canadian Oil Refinery. Machinery will be required.

Port Arthur, Ont.

The Alberta Land Company are preparing plans for a five-story business building to cost $100,000.

It is the intention of the Kaministiquia Power Company to make an extension to its present plant at Kababeka Falls, Port Arthur, Ont., which will cost $500,000. It is also understood that the company will make improvements to the substation at Fort William and will generally enlarge and extend the whole electric power plant.

Port Mann, B.C.

The roundhouse being built by the C.N.R. is almost completed.

Port Haney, B.C.

C. T. W. Piper, Burnaby, is negotiating for a site east of the Haney Brick Company's Works for the erection of a shingle mill.

Prince Rupert, B.C.

The B. C. Fisheries, Limited, 602 Hastings St. W., Vancouver, have secured a site of 240 acres at Porpoise Harbor for the erection of an ice and cold storage plant.

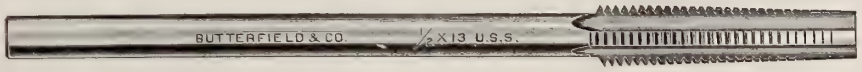
Regina, Sask.

J. H. G. Russell, 1110-1111 McArthur Building, Winnipeg, is drawing plans for a warehouse for Campbell, Wilson and Strathdee, Dewdney & Rose. Tenders will be called in the spring.

The erection of a two-story office building is under consideration by the Constructors, Limited, 810 Dewdney Ave., at a cost of $15,000.

Regina has started on 1914 well, as far as industrial development is concerned. Two large industries have been signed up to locate in the model industrial district. One of these is a flour mill with the capacity to mill three thousand barrels per day. It is estimated that this company's operations will result in a showing of an additional $3,000,000 to

TAPPER TAPS

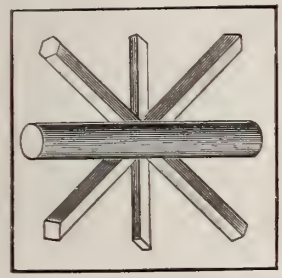


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Are used by the principal Bolt and Nut concerns in Canada. Why? Because they give satisfaction. They will satisfy you too if you will try them.

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COLD DRAWN, TURNED AND POLISHED STEEL

SHAFTING

ROUNDS, SQUARES, HEXAGONS AND FLATS

$\frac{1}{4}$ in. to 6 in. Dia. $\frac{1}{4}$ in. to 2 in. $\frac{1}{4}$ in. to $2\frac{1}{4}$ in. up to $1\frac{1}{2}$ in. $2\frac{1}{2}$ in.

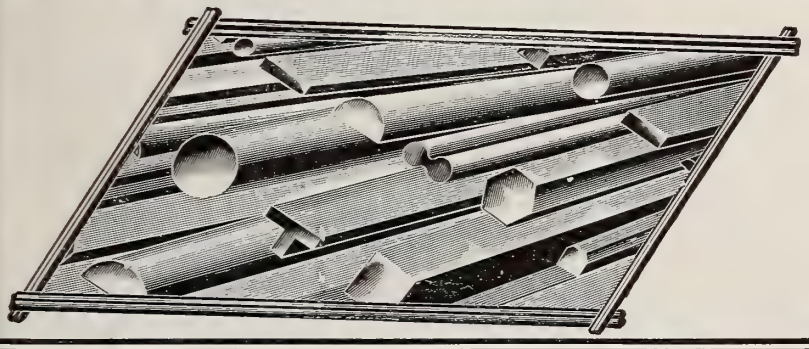
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HAMILTON, ONTARIO

UNION DRAWN STEEL CO., Limited

HAMILTON, ONTARIO



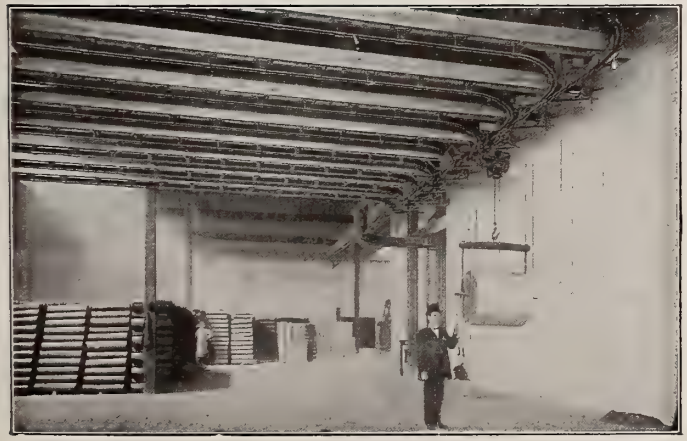
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Overhead Carrying System

REDUCE YOUR INSURANCE

By using

"R-W" LABELLED FIRE-DOOR FIXTURES

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BROWN BROS. LIMITED

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ACCOUNT BOOKS

Every Size and Kind

Loose Leaf Ledgers and Binders
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Memo and Price Books
Diaries---Office and Pocket
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Ladies' Hand Bags, Bill Cases
PAPER, OFFICE STATIONERY



"—He's a good man"

Do you remember the satisfaction you experienced when a certain representative proved himself by results to be a "live salesman"? Will you give us the opportunity of submitting, without obligation to you, a plan of "live advertising" for increasing your sales?

ROUS & MANN Limited

TORONTO MONTREAL

Advertisers

We have issued a booklet containing much practical advertising information. Write for a copy.

$5,000,000 in Regina bank clearings yearly. This company is known at the present time as Leitch Brothers' Milling Company, of Oak Lake, Manitoba. The other industrial concern is the Independent Rubber Tire Company. Each of these institutions, it is stated, will employ 75 men. For the present, these are the only two concerns which have been definitely signed up by Regina, but the prospects are that others will decide to locate in Regina in the near future, several companies having announced their intention to establish at Regina.

The Downing Shoe Company's factory has been completed and is in full operation.

Redcliff, Alta.

The erection of a confectionery store and hothouse is being considered by the Overland Company, Limited.

Rock Island, Que.

A company has been incorporated to take over the business of the J. B. Goodhue Company, makers of overalls, Rock Island, Que. The firm name will be retained by the new company, which is capitalized at $100,000.

Saskatoon, Sask.

A large Scotch firm engaged in the structural iron and steel business has written asking if a site of from twelve to fifteen acres could be obtained as a bonus, on which to build a plant which would be the headquarters for Western Canada. The head of the firm will be in the West this spring to look into the question.

No definite decision was reached when the members of the City Council recently visited Prince Albert to see if terms could be arranged for the supply of power to Saskatoon when the La Colle Falls Power Plant is completed.

A free site is wanted by a large English brewery which contemplates the forming of a subsidiary company here. The capital stock will be $500,000.

The City Council has entered into an agreement to supply power to the Northland Milling Company, located at Factoria, on the northern outskirts of this city. The price will be two cents per k.w. hour. An overhead line will be constructed from the city power house to Factoria. The city will bear the expense of the line from the power house to the city limits, and the milling company will there take over the line and construct it the remainder of the way. The company's plant is now ready to operate, and has a capacity of 700 barrels per day, capable of enlargement to 1,500 barrels. This is the second large American milling concern to establish here within the past two years, the other being the sole western plant of the Quaker Oats Co., of Chicago.

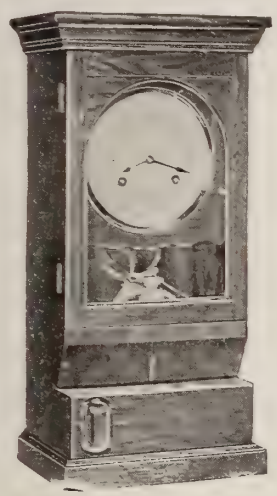
Marshall's Sons & Co., tractor manufacturers of Gainsboro, England, have just completed their factory here and are now in shape to go energetically after their share of this season's business. Their travellers are now on the road, and agents are being appointed throughout the country. The firm in question is one of the oldest and best known British tractor manufacturers. They have engines operating all over the older world; but through the efforts of the local Board of Trade, were some time ago induced to turn their attention to this new country.

Sault Ste. Marie, Ont.

The merchant mill of the Algoma Steel Corporation commenced operations last week with a full day working force.

SAVE MONEY IN WAGES

TIME RECORDING SYSTEMS are essential for the protection of manufacturers. Wages form the heaviest single item in the expense account of most businesses. You do not know whether you are getting service for your wage expenditure unless you have an automatic system to record the times of arrival and departure of employees. Write us for illustrated catalogue.



Dey Cost Keeper for Getting Accurate Cost

We are the Original Manufacturers of All Time Recorders.

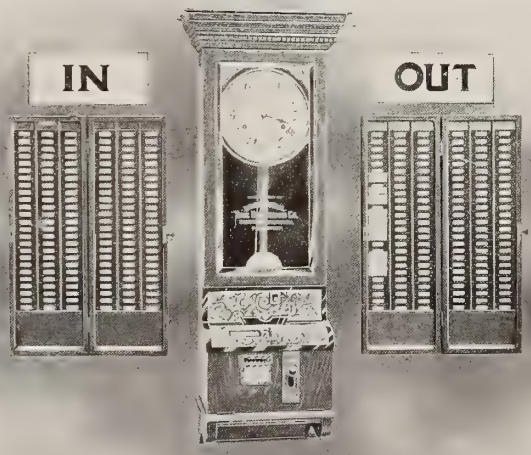
We Lead, Others Follow.



Autograph Clock



Well-Known Dey Dial Recorder.



International Card Recorder

INTERNATIONAL TIME RECORDING COMPANY OF CANADA, LIMITED

21-23 Alice Street, Toronto, Canada - - - Offices in all Principal Cities in Canada

Oxy-Acetylene Talk—No. 1

Mr. Engineer

When it breaks—have it welded! you will save time, temper and money this way!

Mr. Manufacturer

When your customers ask for "Welded" articles—what do you offer?

No RIVETS, no LEAKS, no TROUBLE!

Better see about your outfit! Our booklet explains, write at once.

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TORONTO, BOLER ST.
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The Montreal Lithographing Company, Limited

High Class Lithographers and Designers of

CALENDARS SHOW CARDS
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ONTARIO STREET & PAPINEAU AVENUE
MONTREAL, CANADA

Sherbrooke, Que.

Albert Leclerc, Bowan Ave., has had plans drawn for the erection of a moving picture theatre and apartment building to cost $25,000.

St. Catharines, Ont.

On Jan. 28th the by-law to grant the Consumers Rubber Company a free site and exemptions was defeated by the ratepayers.

St. Thomas, Ont.

A building has been purchased by the Royal Bank of Canada and will be used for bank, offices and apartments.

The Producer Fish Company of Port Stanley at their annual meeting decided to form a joint stock company for the establishment of a fertilizer plant at Port Stanley.

Stratford, Ont.

It is the intention of the Stratford Manufacturing Company to enlarge their plant and make ladders of various kinds.

If Stratford will grant $2,500 for a site and fix the assessment at $7,500 for other than school tax, John F. Morelock, of Hanover, will erect an upholstery factory 100 by 45 feet, six stories in height, to employ fifty hands.

Sudbury, Ont.

Tenders will probably be called by W. H. Owens, Room 18, Baikie-Gill Block, for a $20,000 store and apartment building for Messrs. Wilson & Greenwood.

Swift Current, Sask.

The erection of a warehouse will be started by the International Harvester Company, Chicago, Illinois, in the spring.

Sydney, N.S.

The city will shortly be in the market for extensions to waterworks.

Toronto, Ont.

At the corner of Grenville and Yonge Sts., S. A. N. Powell, 617 Spadina Ave., proposes to erect a theatre and stores.

No date being set for closing, tenders are still open for the erection of a theatre on Victoria St., for C. H. Miles, Cleveland, Ohio.

Architect W. S. Thompson, 358 Brunswick Ave., has plans drawn for reconstructing the foundry of Foundry Specialties Co., Cherry St.

A site has been purchased by the Dominion Bank at the corner of McCaul and Anderson Sts., for the erection of a branch bank.

J. B. Baker has been awarded the contract for the erection of a plant on Clinton St. for the Canadian Seamless Wire Co., 88 Teraulay St.

The Clauss Shear Co., Limited, will build a plant for the manufacture of shears, scissors, razors, manicure articles, etc.

A 27-acre site on Ashbridge's Bay is being negotiated for by Polson Iron Works.

It was stated this week by E. L. Cousins, Chief Engineer of the Harbor Commission, that an American steel company is negotiating for a 90-acre site on Ashbridge's Bay.



New Factory of Henry Hope & Sons of Canada, Limited, at Peterborough, Ont.

The Home of Hope Sash

IN CANADA

¶ A striking example of the use of HOPE'S STEEL SASH and SKYLIGHTS for the Modern Factory Building.

¶ The interior of this factory is as complete and up-to-date as the exterior.

¶ Light and Ventilation to the fullest degree attainable is an important feature of the building.

¶ Machinery is all of the most improved type—specially designed for producing the very highest grade of Steel Sash in the most economical manner.

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Made in Canada



From British Stock

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LEATHER BELTING

"D.K."

BALATA BELTING

Guaranteed to Give Satisfaction

D. K. McLAREN LIMITED

TORONTO MONTREAL ST. JOHN, N.B.
VANCOUVER, B.C.

A $150,000 building will be erected by the Canadian Kodak Co. in the spring. They are making tests on their property near the C.P.R. tracks at Mount Dennis.

A permit has been issued by the Board of Control for the rebuilding of Hewetson & Co.'s factory at 88 Teraulay St., which was recently destroyed by fire.

The Harris Lithographing Co. have purchased a new factory on Sterling Road which will give them much greater space.

The steel work in connection with the construction of the Methodist Book & Publishing Company, Toronto, has been awarded by John H. Parker, Canadian Limited, to McGregor & McIntyre, Limited, of Toronto.

Truro, N.S.

E. D. Vernon, architect, Dominion Street, is preparing plans for the erection of a new hall for the I.O.O.F., costing about $25,000.

Vancouver.

A deal is reported to have been made by the Imperial Oil Company, Vancouver, for a one-hundred-acre waterfront site opposite to Port Moody, the price being $150,000. It is expected a refinery will be erected on this site at a cost of $500,000. Wharves will be constructed and the manufacture of kerosene, gasoline, lubricating oils and all by-products will be undertaken.

The erection of a motor truck factory is contemplated by the Commercial Cars, Limited, Luton, England. Mr. Haekel, Hotel Vancouver, is looking for a suitable site.

The Alaska British Columbia Bedding Company has started a factory in Vancouver, with Mr. W. J. Crombie as managing director, and will produce metal bedsteads, metal springs, sliding couches and mattresses. The plant will cost about $200,000.

The Restmore Manufacturing Company has taken out a special permit to amend the plans of their factory, calling for a further expenditure of $7,000. The original permit was issued for a factory estimated to cost $150,000.

Preparations are being made by J. S. McDonald, of Eau Claire, Wis., to start an iron and steel foundry for the manufacture of gas engines and other machinery.

Victoria.

The Hudson Bay Company are calling for tenders for their new store to be erected in Victoria, excavations for which were completed last year. The site cost $250,000, and the first appropriation for the building amounts to $450,000. It is understood that when the next section is added the whole block will have cost upwards of $1,000,000.

It is stated by E. A. Waterman, manager of Weiler Brothers, Limited, furniture manufacturers, that the firm will be in a position to start on the erection of its new plant in a few months.

A planing mill will be erected here by the Bertrand-Lockhart Lumber Company.

Waterloo, Ont.

A plant will be erected here by the Beam Bros. to make threshing machines, engines, boilers and other farm implements. The firm is capitalized at $40,000. Nathaniel Beam, engineer, and Gideon Beam, Waterloo, are interested.



Cut of 50-inch "Extra" Double Belt
Made by The J. C. McLaren Belting Co., Limited.

WE ARE HEADQUARTERS FOR ALL KINDS OF

BELTING
LACE LEATHER
CARD CLOTHING
REEDS AND
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MILL SUPPLIES

ABSOLUTE SATISFACTION GUARANTEED

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Manufactured for Half a Century—the Standard of Excellence

Try it and Compare
Its Surface Covering Capacity
With Other Brands

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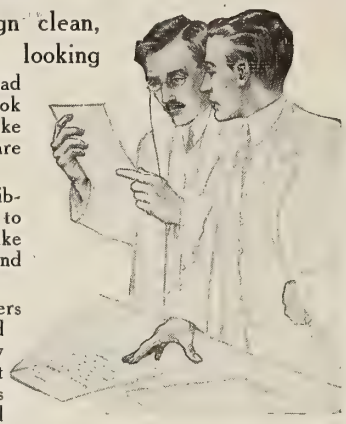
Hillsborough, New Brunswick, Canada

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Sprinkler Systems
TOWN WATER SUPPLY
ETC., ETC

PUMPS
CONCRETE MIXERS
HOISTS, Etc.
Write, if interested

Wallace Township, Ont.

The erection of a brick and mill construction factory is contemplated by Kerr Bros., 486 Queen St. W.

Welland, Ont.

The Welland Machine & Foundries, Limited, will build an addition to their plant next spring.

The Union Carbide Company have almost completed their new plant here.

An application is being made to Parliament for the incorporation of the Ontario Tire & Rubber Company, with a capitalization of $750,000. A plant will be erected at Welland for the manufacture of automobile tires.

Windsor, Ont.

The Windsor Hotel Company are having plans drawn for an eight-story $300,000 hotel at the corner of Oullette and Park Streets.

James C. Pennington, architect, will receive tenders for the erection of a factory on Pitt St. E., for J. T. Wing & Co.

The erection of a modern eight-story fire-proof hotel, costing $350,000, including site, will be started by the Windsor Hotel Company in Windsor.

A plant will be erected by the Ideal Concrete Machinery Company for the manufacture of concrete machinery and other products. The cost will be $7,000, and it is to be erected during the coming summer.

The ratepayers will vote on a by-law March 3rd, authorizing the city to grant certain concessions to the Dowsley Spring & Axle Company for the erection of a plant here, costing $15,000, to be used for the manufacture of automobile axles and other steel products.

The Ford Motor Company of Canada, according to a statement made by Gordon McGregor, general manager, are producing power cheaper than the Hydro.

Alterations will probably be made to the factory of Heintzman & Company on Ouellette St., at a cost of $5,000.

Winnipeg, Man.

The factory of the Winnipeg Tanning Company, 382 Nairn Ave., recently destroyed by fire, will be rebuilt.

Plans are in the hands of the architect for the new Engineering Building for the University of Manitoba. They do not include at present either a foundry, forge or pattern-making shop.

An office has recently been opened by the Theodore Kipp Company here as mill engineers and general machinery dealers. Mr. Kipp has had wide experience with general, power plant and milling machinery, and installed all the machinery for the Robin Hood Mill Company at Moose Jaw. The Company is well equipped for advising and carrying cut new work and is in a position to supply the necessary machinery, having a number of agencies for various lines, such as Worthington pumps and condensers, International Gas Engine Company's products, Foxboro recording instruments, Green chain grate stokers, Richardson Phenix lubricators, Diesel engines, tubular boilers, concrete chimneys, steam specialties, recording instruments, etc.

At an estimated cost of $20,000 the Burrows, Stewart & Milne Company, St. James St. E., propose adding four stories to their warehouse.

INDUSTRIAL CANADA

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No Tariff Reductions.

THE Borden Government was elected to office on a straight tariff fight. Reciprocity was the issue, or, in other words, the advisability of maintaining or reducing the existing tariff. Therefore, it is reasonable to assume that the people of Canada, as a whole, returned the Borden Government to power because they did not want the tariff reduced.

It was not to be expected that the minority, who wanted and still want tariff reductions, should be converted by defeat to the opinion of the majority. We would expect them to continue demanding reduction of duties on agricultural implements and other manufactured goods. But it would be surprising if a government, definitely instructed by the voters of the nation to continue the National Policy, should disregard the wishes of those who put them into power in order to grant the desires of those who tried to keep them out.

What Canadian manufacturers need is an assurance that they will be allowed to continue to develop their industries, free from the fear that their protection will be suddenly demolished when a Free Trade fever breaks out.

Manufacturing in Canada is a risky business. Our general tariff is one of the lowest existing in countries which believe in the protection of industry, while the British preference throughout is about on a level with revenue tariff rates. Labor is expensive and freight rates are high. A few manufacturers become rich, just as lucky prospectors stumble over mines, but the majority meet only with indifferent success.

This condition should not exist. We have plenty of raw material, intelligent workers, and high per capita purchasing power. But our industries suffer chiefly through lack of confidence. Capital becomes elusive when the tariff is in danger of being lowered and skilled European workmen do not care to emigrate to a country where factories may be shut down after their protection is removed.

If one wishes proof of the lack of confidence in the future one has only to consult the daily reports of the markets, which show only too plainly the depression and fluctuation of industrial stocks.

Give the manufacturers definite assurance that our low tariff will not be further reduced and confidence will be restored, factory construction will increase, idle employees will be re-engaged and industry will continue its natural development.

Lignite as Manufacturers' Fuel.

LIGNITE is being used by the United States reclamation service to generate electricity for electric pumps, which are being operated to lift water in an extensive irrigation system in the Mississippi Valley. The experiment is commented upon favorably by Mr. Frank A. Herald of the United States Geological Survey, who says that lignite is satisfactory as fuel when boilers and fireboxes are properly constructed.

Extensive deposits of lignite exist in Ontario, chiefly on the Hudson Bay slope, but owing to lack of transportation facilities, they have not been mined. Saskatchewan and Manitoba have made some progress in the manufacture of lignite briquettes, but, as yet, lignite has not displaced soft coal and electricity as fuel to any extent. However, manufacturers are always concerned with experiments seeking to produce cheap fuel, and further treatment of lignite will be awaited with interest.

Canada's Live Stock.

FARMING is Canada's greatest industry. The farmer is a Jack-of-all-trades and a handy man at most of them. It is impossible to estimate the capital invested in the farms of this country, but some conception of its amount may be gained from the statistics on live stock recently published by the Census Department. These show that Canadian farmers own animals worth $659,000,000, divided as follows: Horses, $420,079,250; milch cows, $115,369,294; other cattle, $86,522,140; sheep, $10,672,803, and swine $26,664,735. It is surprising to learn that nearly two-thirds of the total is represented by horses. It is also discouraging to notice that the value of all the sheep in Canada is so small. Apparently, owing to the present condition of our woollen industry, sheep-raising does not pay.

Encouragement From The Times.

IN discussing what he calls "another illustration of the seamy side of Canadian politics," the Toronto correspondent of the *London Times* shows a desire to exaggerate the failings of his own country, which is too common among our journalists. After summarizing recent Canadian scandals, he concludes his despatch with the following comment:

"It is freely recognized that the Premiers of the various Provinces and the Prime Minister are striving resolutely to resist improper influences, to improve the conduct of elections, and to cleanse the public departments from looseness and jobbery."

The impression conveyed is that Canada, long a horrible sinner, is at last showing faint glimmers of repentance and that, with the passage of several centuries, her people may even hope to approach the high moral plane already attained by the readers of the *Times*.

Such articles stick in the memories of prospective investors and immigrants, and are poor advertisements for Canada in Europe.

The Insurance Companies and Compensation.

"GIVE the manufacturers the right to choose between state insurance and private companies," has been the plea of the insurance companies in regard to the Workmen's Compensation Act, proposed for Ontario.

Translated, this means: "Give us a chance to get business."

Mr. Miles Dawson, the well-known New York expert, speaking at Toronto in March, advised eliminating the insurance companies entirely. He recalled the experience of Michigan, where choice was given. The mutual companies, organized by the manufacturers, got two per cent., the state got three per cent. and the insurance companies 88 per cent. of the total business. By allowing the insurance companies to administer part of the fund he claimed that from 25 to 30 per cent. of the compensation would be required to pay the expenses of agents.

In the United States, according to Mr. Dawson, only 50 per cent. of the money paid out by manufacturers reached injured employees or their dependants. The balance went to the insurance companies. Yet, with state insurance, Norway administered a system with 10 per cent. of the total amount collected. Austria administered a system of groups under state supervision with 11 per cent., and Germany with 13 per cent. The State of Washington has done even better with state insurance by using only 8 per cent.

These figures dispose of the insurance agent, so far as workmen's compensation is concerned.

If Ontario manufacturers need further proof of the possibility of economical state administration, they can recall the experience of the Ontario Hydro-Electric Commission. Most of the arguments used by the private power companies against the Hydro are being used now against a state-supervised system of compensation.

The fact that the insurance companies oppose the grouping system under Government supervision will scarcely be regarded by manufacturers as an argument against that system, but rather as an argument for it. It would require only the presence of large deputations of lawyers, armed with the plea that their fees were in danger, to stiffen opposition to the propositions of all middlemen, who take toll from the money which passes between employer and employee. The employee who loses an arm and the employer who pays him compensation for his pain and disability, should be brought into agreement by the quickest and most economical means.

Mr. Dawson's Recommendations.

TWO things are recommended to manufacturers in regard to compensation by Mr. Miles Dawson: first, that all industries should be put under one insurance law; second, that the cost of compensation should be collected annually, independent of any capitalized reserve.

If any employers, such as the large railway companies, are strong enough to stand alone for insurance purposes, there is no reason why they should not be allowed provisionally to do so, but it does not follow that they should be exempted from the general operation of the law with respect to assessment and disbursement of the compensation funds. The wisdom of this recommendation is apparent when one considers the coercive power a great railway corporation might wield in producing settlement with an employee.

Mr. Dawson does not believe that a capitalized reserve is necessary to protect employees; moreover, it is a burden upon industry, since the accumulation of huge reserves withdraws capital from manufacturing, and keeps it isolated at unproductive rates of interest.

Canadian manufacturers know by experience that capi-

tal is hard to get. During a financial stringency, such as the present, it is especially elusive. Every dollar of capital that an Ontario manufacturer can secure is needed in his business, and consequently he will look with disfavor upon any reserve fund which withdraws large amounts from legitimate enterprises.

Prevention and Compensation.

ONE of the certain results of the establishment of Workmen's Compensation will be stimulated interest in accident prevention.

A manufacturer under the present law pays compensation only in case of an accident happening in his own factory after a judicial decision has been given against him. Consequently he may take chances and neglect prevention. But under a system of collective insurance, supervised by the Government, he pays for, not only his own accidents, but also for those of other manufacturers in his group. He will be in somewhat the same position in regard to compensation as he is in regard to fire insurance. The more fires the higher the premiums. In Europe a man who suffers from fire is not regarded with sympathy, but with disfavor. He is held to be at fault, and in most cases he is at fault.

Similarly, the manufacturer who has an unusual number of accidents will not be popular among other members of his group. He will receive hints in regard to safety appliances. Pointed references will be made to dangerous equipment. The careless man will feel the convincing weight of public opinion and the gradual increase in the assessment levied on the group to which he belongs will cause him to realize how much accidents, preventable and unpreventable, cost, and such exact knowledge will interest him in any proposal to reduce the number of accidents, if only to diminish the cost of compensation.

This is the strictly material side of the question, but it is a side which opens the mind to argument. As soon as it is understood that the loss of human life in industrial establishments is an economic waste, it will be diminished. Usually, dependents of those killed and injured, the injured, and the disabled are thrown upon public or private charity, as the majority of workmen have no support except their wages. The Province of Ontario is paying heavy compensation now—indirectly. There is no quicker way to lessen the burden of compensation than by reducing the number of accidents.

Accidents result chiefly from three causes: carelessness of employees, unguarded machinery and defective equipment. The first is the principal cause, as all manufacturers know. The insane carelessness of some employees in regard to their lives and limbs is appalling. Occasionally workmen approach a circular saw as though they were going to shake hands with a friend.

The vital thing about accident prevention education is to teach the careless to be careful.



"SHOULD BE LAYING SOON."
S. Hunter, in Toronto World.

Subsidies to Electric Railways.

SHOULD an electric railway receive a subsidy? This question was brought up by a deputation which appeared recently before Hon. J. D. Reid, Acting Minister of Railways and Canals, to ask a subsidy for the Morrisburg and Ottawa Electric Railway.

In reply Dr. Reid said:

"The request, if granted, would be a new departure from the established custom. A few years ago it would not have been considered at all, but on account of the ever-increasing use of electricity it may be necessary for the Government to change the policy which has been in force since Confederation, of granting subsidies only to steam railways."

We are not convinced by the argument that electric railways should be subsidized, because steam roads have been similarly favored in the past. The subsidizing of trunk lines through the wildernesses of a new country is usually a painful and costly necessity, but the country lying between Morrisburg and Ottawa can scarcely be described as a wilderness. It is one of the oldest sections of Canada,

and it is difficult to see how a railway can expect to succeed with the assistance of a bonus if the possibilities of traffic do not justify construction without it.

The practice of offering bonuses to factories, formerly much in vogue in Canadian municipalities, is gradually passing away. Although in some cases where peculiar conditions existed, it may have been justified, the evils of the bonus system over-balanced its merits. Many of the arguments used against bonusing factories may be applied to the subsidizing of electric railways, which are seldom the pioneers of transportation and operate usually in well-settled districts.

It is no counter-argument to say that manufacturers, who are protected by the tariff, are inconsistent in opposing the granting of subsidies to electric railways. The tariff is designed to protect home factories against foreign factories, which, by sending manufactured goods into Canada, displace Canadian goods in our home market. No foreign transportation company can compete with an electric railway operating between Morrisburg and Ottawa. In fact, it would be difficult to find many electric roads operating in Canada which can be robbed of traffic by United States roads, except where two roads parallel the international boundary.

In the case of an electric road, the possibility of traffic does or does not justify construction, and capital is quick to take advantage of such possibility, since traction companies are usually viewed favorably by investors. Subsidies would merely be absorbed by the promoters and shareholders without benefiting the public.

Use Canadian Lumber in Manufacturing.

STATISTICS show that Canadian manufacturers are importing great quantities of lumber from foreign countries. Some of this wood is not grown in Canada, but much of it is. Canada has great forests of birch, which cannot be marketed because it is too heavy to float down rivers and no railways are within hauling distance. Consequently, we import birch.

In the St. John and Tobique Valleys of New Brunswick there is an area of 10,000 square miles of crown and private lands, on which the tamarack, maple, elm, birch, ash, butternut and poplar has not been cut to any extent. Yet, last year, Ontario manufacturers alone paid about $5,000,000 for imported woods.

The extent to which Ontario manufacturers imported wood from foreign countries last year is shown by the following statistics compiled by the Forestry Department: oak, 98 per cent.; hickory, 99 per cent.; maple, 95 per cent.; pine, 33 per cent.; birch, 65 per cent.; ash, 78 per cent.; elm, 26 per cent., and beech, 96 per cent. of the total amount used.

Manufacturers should discover where and in what quantities woods which they use exist in Canada and why they cannot be put upon the Canadian market at prices lower than those secured for similar woods shipped into the country. Now that our trunk railways are completed, transportation companies should consider tapping our forests with branch lines so that Canadian timber may be used by Canadian manufacturers.

Technical School for Sydney.

PLANS have been filed for a new technical school, costing $125,000, in Sydney, N.S. We know that the plans are good, because they were drawn by Professor F. H. Sexton, Director of Technical Education, Halifax. There is usually one man behind any successful system, and we believe that Nova Scotia has secured in Professor Sexton the man who will drive technical education to a high state of perfection in that Province.

The Sydney school, which will accommodate about a thousand pupils, is designed to administer to the needs of the entire community.

The various provinces, particularly those having important industrial centres, are progressing materially in their endeavor to provide technical education for those who want it. Their example might well be followed by the Dominion Government. Every delay means that Canada will be further handicapped in the competitive industrial struggle against nations adequately equipped with comprehensive systems of technical education and manual training.

Farmers and Government Aid.

CANADIAN farmers cannot consistently oppose the granting of aid to other classes in the country if they consider the fact that a great many of them got their land for nothing. The early settlers in the Maritime Provinces, Quebec and Ontario received large grants of free land as bonuses to induce settlement, and the same policy has been in effect throughout Western Canada.

They were not asked to create instantly the resources with which to compete against the long-established farmers of the United States. Thousands of our farmers to-day have inherited this free land, and are reaping the benefit of governmental bounty, bestowed on previous generations of farmers by the other classes of the nation.

Yet some of these farmers claim that manufacturers should become immediately capable of meeting competition without the assistance afforded by the Government in the shape of a protective tariff. Governments must assist all classes endeavoring to maintain a just and equitable proportion. As the Government is still giving away free land, the manufacturers might reasonably ask for more protection. They are not making a request for more protection, but they do ask that the very moderate protection which they now possess shall not be taken away.

What would the farmers say if the Government decided to return to the crown part of the free land grants, which constitute one of the principal reasons for Canadian rural prosperity?

Plenty of Work for Express Companies.

THE successful operation of the parcel post system in Canada should not drive the express companies into bankruptcy. There is still plenty of work left for them because they offer many advantages to shippers which are not afforded by parcel post, such as personal service, protection in transit, collection and delivery of parcels, the option of exacting C.O.D. payment from consignees and the privilege of stopping goods in transit.

The parcel post system, while it competes with the express companies to a certain degree, was principally designed to provide services which the express companies cannot give. We need all transportation systems which tend to bring into closer communication buyers and sellers. But the express companies should remember the warning given to them by the Dominion Railway Commission when it reduced their rates. If the express companies strive to furnish good service, and to make their charges reasonable for this service, they will get plenty of business at rates which should not dishearten their stockholders.

No Craftsman's Pride in Modern Unions.

IN commenting upon the immense throng of trade unionists which gathered in Hyde Park, London, to express disapproval of Premier Botha's deportation of labor agitators from South Africa, the *Pall Mall Gazette* says:

"Joy or the pride of craftsmen could not to-day produce such a gathering. Anger or discontent will do it; a grievance, real or imaginary, will do it; hatred will do it; but joy will not do it. And that is surely a most unhappy and ominous fact for the sensible person, whatever class he belongs to, to consider. The pride and pleasure of the true craftsman lie in what he creates; but the speeches of some of our craftsmen suggested that their pride and pleasure lay in what they could destroy."

All this is true of Canada. We are familiar with boycott, sabotage, strikes, coercion of non-unionists, demands for shorter hours, higher pay and unreasonable privileges, but we seldom encounter the craving to create a beautiful and perfect thing, which is characteristic of the true craftsman who loves his work.

Bonar Law on Tariff Reform.

THE March number of *Our Flag,* published by the National Unionist Association, contains the following summary by Mr. Bonar Law of the Unionist policy on Tariff Reform in Great Britain:

"*Food*—If, as a result of the next election, the Unionists are returned to power, we shall impose no new duties on the food of the people, but, on the contrary, we hope to take off some of the food duties which they now have to pay.

"*Manufactures.*—We shall impose a moderate tariff on foreign manufactured goods—a tariff not exceeding an average of 10 per cent.

"*Colonial Preference.*—We shall at the same time establish at once the principle of Imperial Preference.

"*True Free Trade.*—In my belief, duties such as these, apart from any other consideration, can be justified on the strictest Free Trade principles by the needs of revenue.

"*Need for Revenue.*—They can be justified on precisely the same ground on which revenue tariffs have been imposed by Free Trade Governments in India and in Egypt.

"*Colonial Desires.*—We shall give to our self-governing Dominions what at every conference for more than 25 years they have unanimously asked from us, and that is all that they have formally asked. We shall give them immediately a preference on all duties imposed in the United Kingdom.

"*Agricultural Question.*—That policy does not stand alone. I have already in the House of Commons, on behalf of our party, made this pledge, which I repeat, that, apart altogether from the readjustment on general lines of local taxation, which is urgently required, apart from that readjustment, at the same time that we impose a tariff we shall take part of the revenue of that tariff and use it in reducing the burdens of agriculture, in order to make sure that the farmer will at least be compensated, and more than compensated, for any additional price which, as the result of the tariff, he may by any possibility be called upon to pay.

"*Revenue from Luxuries.*—Among imports at present come articles to the annual value of something like £30,000,000, which are absolutely luxuries, and I can imagine no form of taxation which would be fairer and would make it more certain that the burden would fall upon those best able to bear it than a duty on luxuries imported from abroad."

The hope that Canadian manufacturers will get a preference in the British market in return for that which has been given the British manufacturer in our market is revived by the above definite statement of Mr. Bonar Law, leader of the Unionist party in the British House of Commons. It is significant that the growing popularity of the Unionist Party has not been diminished by the recent frank deliverances of its leader on the great subject of tariff reform.

Steamship Connections Between Canada and South America.

CANADA should have adequate steamship connections with South America at the earliest possible moment. The recent tour of Mr. Poussette, Canadian Trade Commissioner, through the countries of South America, convinced him that many opportunities await energetic business men. But it will be no use to make goods for the South Americans unless we can get these goods carried to their ports.

When the Canadian Government entered into a contract with the Royal Mail Steam Packet Company (Pickford & Black, Canadian agents) last year, it was generally understood that a shipping service would be provided, not only to the West Indies, but also to the principal ports of South America. This impression was strengthened by the fol-

lowing clause of the contract between the Government and the company:

"The contractors shall issue through bills of lading from any Canadian point of shipment to any port in Central or South America, which are regular ports of call, for any of the steamships employed or controlled by the contractors on other services and which make regular connections with the service herein contracted for."

So far as South America is concerned, the company have only quoted rates on traffic through to Venezuela, Colombia and Colon. In reply to enquiries they express doubt that rates can be given even to Northern Brazil. Consequently practically all the great South American ports are not connected with Canada by our subsidized service, just at the time when the trade depression is forcing Canadian manufacturers to look abroad for markets.

Travellers Are Not Peddlers.

SOME Western cities are overshooting the spirit of the by-laws, usually in force in urban communities, prohibiting the sale of goods direct to consumers without the permission conferred by a peddler's license. It is only right that retailers, who pay taxes, should not have their market invaded by transient peddlers, who pay none. But when salaried travellers of commercial firms, such as the representatives of wholesale stationers who sell to business houses, are forced to take out licenses, an intolerable restraint is placed upon legitimate trade. Complaints have been recently made that the Winnipeg by-law governing this point is being strained so as to force *bona fide* travellers to pay $200 for a peddler's license. This is absurd and should be stopped. A cosmopolitan city like Winnipeg, which enjoys an international reputation for progressiveness, cannot afford to be badly advertised by a practice which resembles that of a country village.

Bill Should Not Have Been Drafted by Sir William Meredith.

IT is becoming daily more apparent that the Ontario Government may have erred in asking Sir William Meredith, its special commissioner on Workmen's Compensation, to draft the bill which is now before the Legislature.

This statement is not necessarily a reflection upon his ability, for it is reasonable to suppose that the Chief Justice of Ontario should know something about bills; it is also reasonable to assume that, distinguished as he is, he does not know everything about bills, or about the subject of Workmen's Compensation. In sanctioning the necessary changes which must be made in the bill, the Government is driven to correct the work of its own expert.

In the opinion of many, this would tie the hands of the Government.

We fail to see the logic of such an opinion. In the first place, a perfect bill has never yet been drafted. Every bill, especially if it is important, undergoes considerable change before it becomes law. No one is better aware of this fact than Sir William Meredith, who has seen hundreds of bills amended by the Legislature while he was leader of the Opposition, and who doubtless has also seen the need of further amendments in those bills when he has been called upon to interpret the resulting laws in his capacity as Chief Justice. The pride of a smaller man might resent the removal of inconsistencies, but the experience and judgment of a Chief Justice should welcome it.

It was scarcely good policy on the part of the Government to select a man of Sir William Meredith's wide interests and activities for the tedious labor of working out the business details of so complicated a system. He has not sufficient time at his disposal. The demands of his position as Chief Justice are very great. For the last five years he has been chairman of the committee which has just finished the revision of the Statutes of Ontario. He is Chancellor of the University of Toronto—and is not yet through with the Farmers' Bank investigation; moreover, though an old man, he still maintains a lively if detached interest in the political life of the Province.

How could a man overwhelmed with so many interests be expected to work out actuarial schedules and to fit thousands of details into the body of a system? His labors should have ended with his investigation, and the result of it should have been presented to the Government in the form of recommendations. The bill shows too plainly the result of haste. Its inconsistencies and contradictions are innumerable and must be removed if benefit is to be derived from the Commissioner's long and arduous investigation.

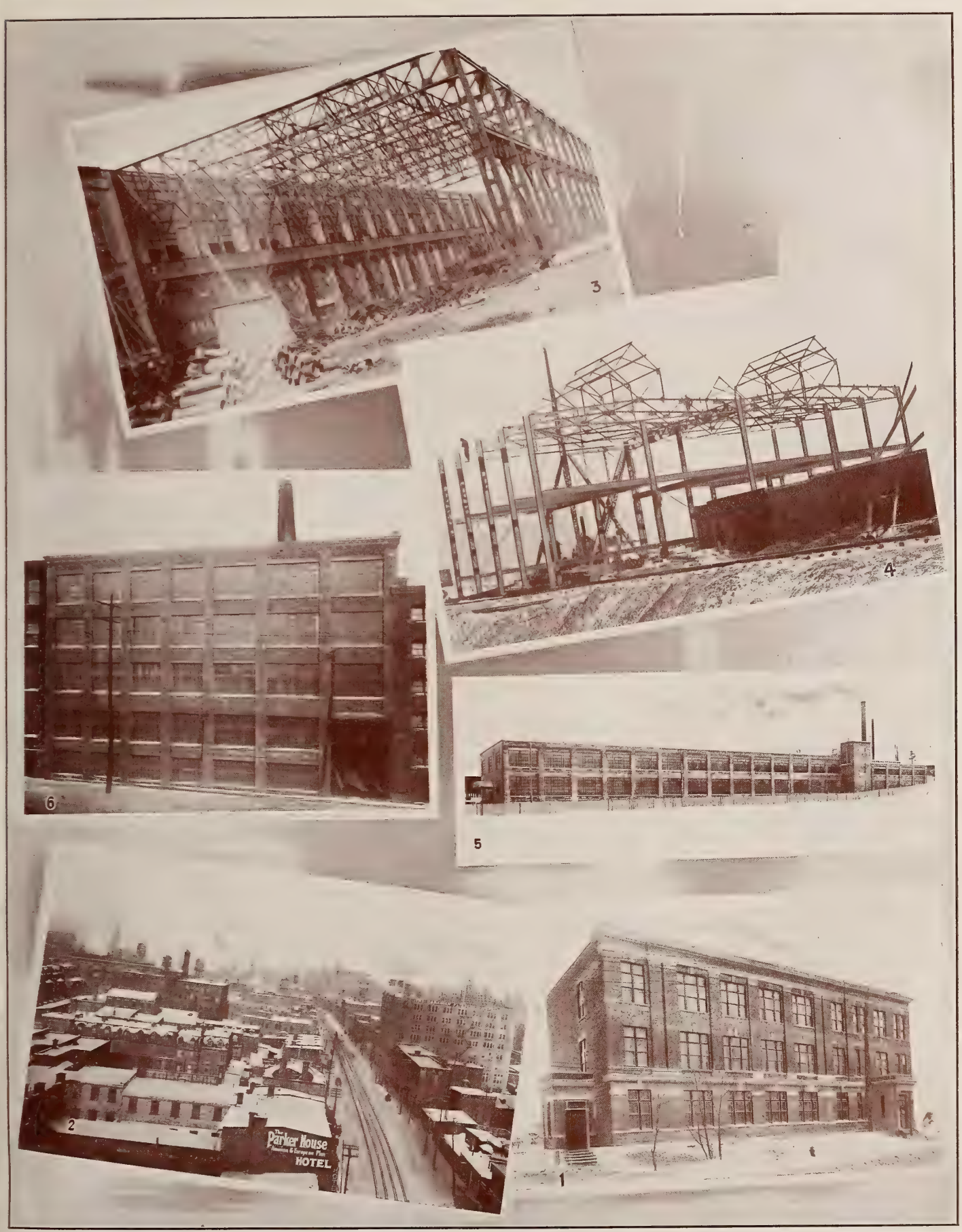
Revision of Shipping Laws.

MANUFACTURERS will commend Hon. J. D. Hazen for his bill revising and consolidating the shipping laws of Canada. His bill, which follows the British Shipping Act closely, reorganizes the pilot system, provides for the investigation of wrecks and includes the regulation of small craft, such as motor boats. Canadian shipping is growing rapidly and should be fostered by a modern law, which will remove abuses and diminish difficulties.

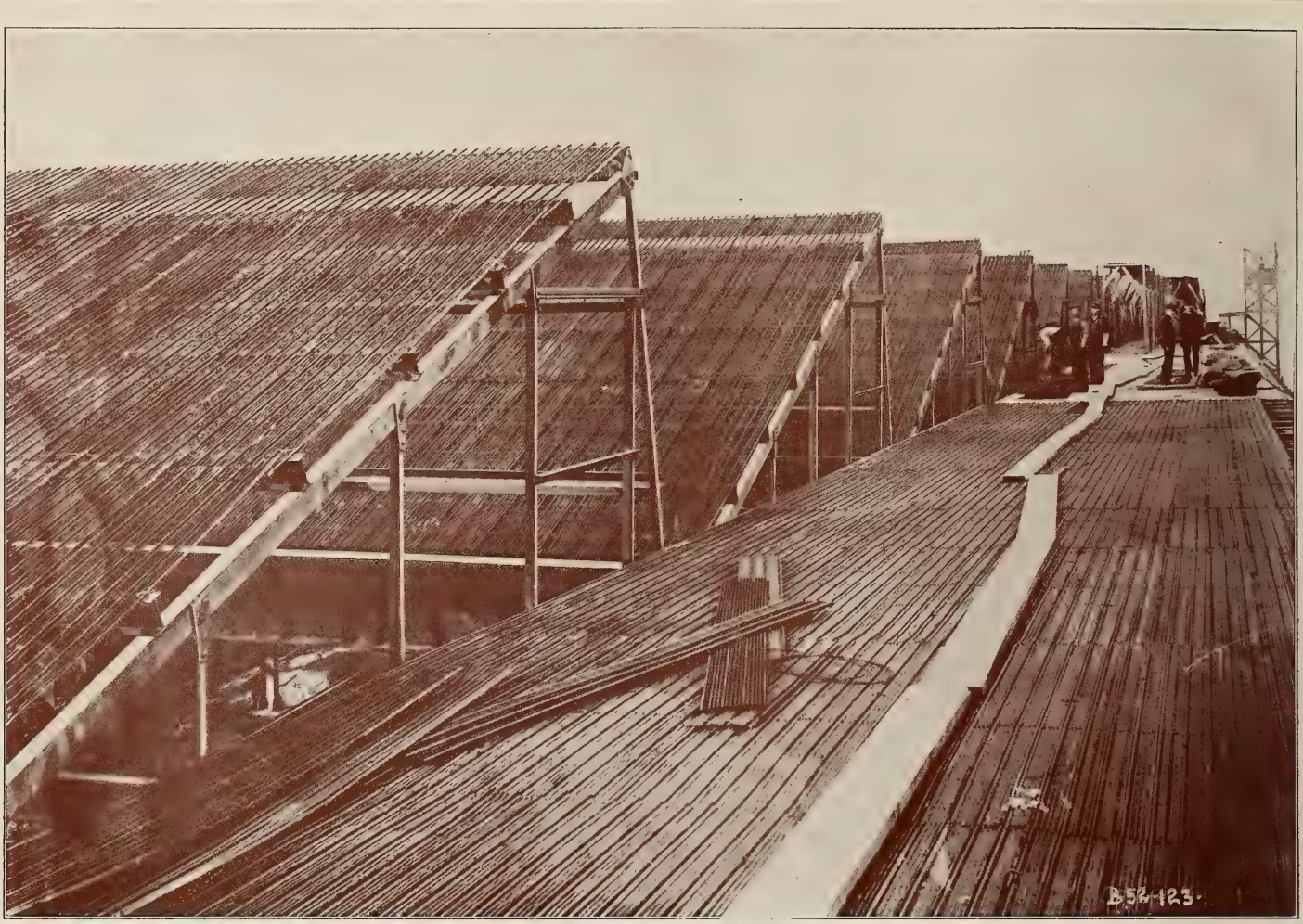
The Government and Parcel Post.

THOSE who criticize the Dominion Government's system of parcel post on the ground that the rates are too high should remember that Canada is a country of vast and sparsely inhabited area. The population per square mile of Great Britain is 493; of Germany, 310; of France, 190; of the United States, 25, and of Canada, only 1.93. In Great Britain and Ireland there are 24,062 post-offices for 121, 391 square miles; in Canada, 14,475 post-offices for 3,729,655 square miles.

If the parcel post system is a success, as we believe it will be, the rates can be easily lowered. It would be much more difficult and unsatisfactory to increase rates, struck too low to gain popularity for the system, in order to meet heavy deficits after a few years of operation.



3. C. P. R. Shops, Kingston. 4. Steel Work, Canadian Vickers, Limited (*Courtesy of Structural Steel Co.*). 6. New Extension to St. Anne's Mill of the Dominion Textile Co., Limited, Montreal. Note contrast between old and new factory construction. 5. New Concrete and Steel Factory of the Colonial Wire Manufacturing Co., Limited, Montreal. 2. New Reinforced Concrete Office and Warehouse of the Canadian Fairbanks-Morse Co., in heart of Montreal. 1. New Fireproof Office Building, Canadian Vickers, Limited, Montreal. (*Courtesy of T. Pringle & Son*)



Rib-roofing on the factory of the Oliver Chilled Plow Works, Hamilton (*Courtesy of Factory*).

FACTORY LIGHTING*

By R. E. SIMPSON

Engineer of the Travellers Insurance Company, Hartford, Conn.

MANY arguments in favor of good lighting in factories and workshops have been advanced recently by men interested in illumination. These arguments or reasons are not untried theories, for every one of them has been proved in actual practice. Statistics on the subject are very meagre, for the reason that the beneficial results of good lighting in factories are not always of a tangible nature and so are rather hard to determine. There is also the fact that no very great or continued effort has been made to get statistics. There are records of a few attempts made along this line, showing a certain consistency in that 75 to 80 per cent. of the factories investigated report favorably with respect to the effect of improved lighting, upon the quality and quantity of product, general health and deportment of employees, and safety to men and machines.

Benefits of Good Lighting.

Briefly, the advantages of good lighting are:—

(1) Increased efficiency in the factory. In the machine-shop a workman will take several times longer to make a fine measurement under poor light than under good light. A shop may be equipped with the most improved types of machinery, and still not be able to earn interest on the investment, because the poor lighting conditions prevent the employees from operating the machines at their top efficiency with safety. The shop is modern in its machine efficiency, but this factor is in a great measure nullified by low man-efficiency, due to a lack of proper lighting facilities.

(2) Continuity of production is more apt to ensue in well-lighted mills. This is especially true in mills where the rate of product in one department depends on the rate in another. A breakdown of the machinery in the first department or a falling off of the working efficiency of the members of that department has a direct effect on the succeeding processes, and so on the finished product. Expensive delays are greatly eliminated by up-to-date methods of lighting. Spoilage is materially reduced in well-lighted shops. This is true of almost every industry. Improper cutting spoils vast quantities of raw material every year, and added to this are the "seconds," the ill-fitting or poorly finished product that is the despair of many factory managers. It is generally agreed among owners of well-lighted factories that these items have been practically eliminated.

(3) Most important of all, either from the economic or the humanitarian standpoint, is the greater safety to employees gained in well-lighted factories. An injury to a good workman is a direct loss to his employer and to the community. If this injury could have been avoided by good lighting—and a large per cent. of accidents can be so avoided—the cost of that lighting is negligible when compared with the general

* Written specially for INDUSTRIAL CANADA.

cost of the injury. There are very few industries where the cost of adequate lighting exceeds one per cent. of the cost of the labor. In fact, in the majority of cases, the cost is less than this.



Example of All-Concrete Construction (*Courtesy of Factory*).

The Various Systems.

There are three so-called systems of lighting, viz., general, local and a combination of the two known as localized general. A general lighting system calls for an installation of comparatively large units with a definite relation between spacing and mounting height. The ideal condition for this system is a building with no obstructions, such as belts and shaftings between the working plane and the ceiling. Such a system when properly installed eliminates confusing shadows and produces a uniform and well-diffused illumination. Even a building in which shafts and belts are numerous can be well lighted under this system by making use of a large number of smaller lighting units, care being taken to see that they are spaced equally.

By local lighting we refer to the system of bringing a small lighting unit close to the work by means of a lamp cable. This system is the outgrowth of the early days of electric lighting, when little or no attention was given to the principles of illuminating engineering. It is open to the objection of high maintenance cost, spotted illumination, pronounced shadows constituting a menace to the safety of the workmen, and the light often placed where the best results are not obtained.

Localize General System.

Shops which have large machines requiring an extended working area—as, for example, a planing mill—can be lighted economically and adequately by the localized general system. If a moderate intensity of one to one and a half foot-candles is provided through the shop and supplemented by local lighting units near the working point, the requirements of good illumination are complied with. Care should be exercised to see that the local lighting units are shielded from the workmen's eyes by suitable reflectors, preferably of bowl shape. A common mistake under the localized general system is the practice of using as large a unit for the local light as that demanded when no general light is provided. An eight candle-power lamp is the maximum size that should be used locally, and in most cases a four candle-power lamp is better suited. If the machine is a large one it is better to use two four candle-power lamps than to depend on one eight candle-power.

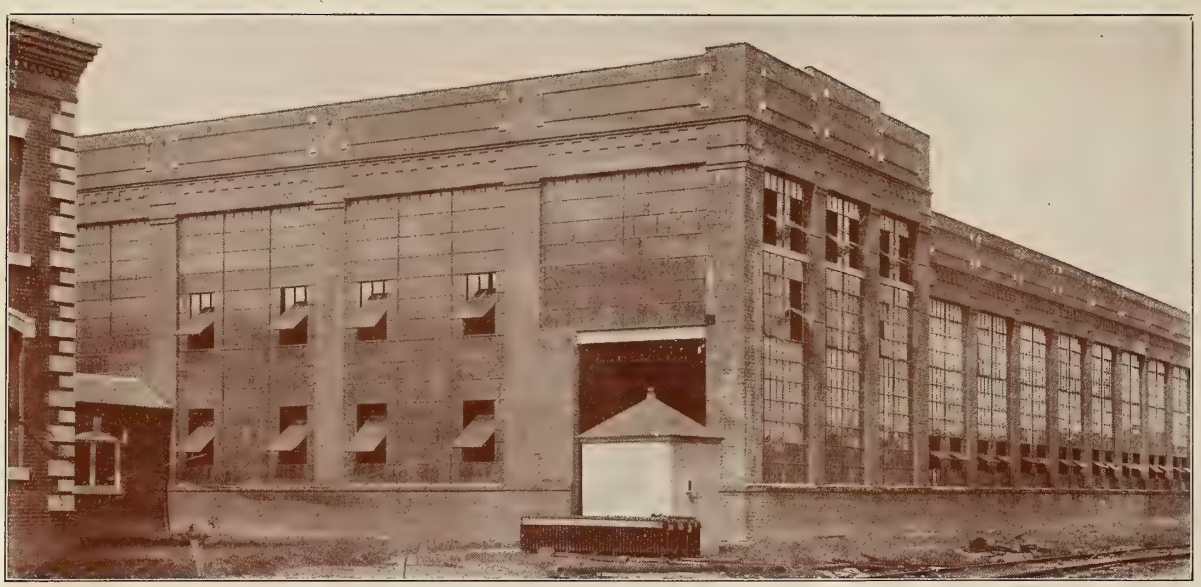
Definite rules as to type, size and equipment of lighting units, mounting heights and spacing cannot be given because of the various factors that enter into the problem. Chief among these are the construction of the building and the nature of the work performed. Buildings with high ceilings (16 feet to 25 feet) laid out in bays from 400 to 600 square feet, can generally be well lighted by a single large unit in the centre of each bay. Foundries, erecting shops, etc., with ceilings higher than 25 feet, have brought into the lighting field the long life flame-arc lamp, and the more recent one-half-watt nitrogen tungsten-filament lamp. For buildings with ceilings of less than sixteen feet it is better to employ from two to six units per bay, depending on the size of the unit and the bay. Two 250-watt tungsten filament lamps, with proper reflectors, per bay of 500 square feet, and with a ceiling fourteen feet high, would give satisfactory illumination, while a bay of the same area but with a ten-foot ceiling would require five 100-watt tungsten filament lamps with reflectors.

Installing a System.

A factory owner or manager contemplating a change in his lighting conditions should consult a lighting expert if possible. Failing in this, his best policy is to lay out each floor of his factory in bays of equal area, the size of the bays depending upon the ceiling height and the amount of energy to be consumed in lighting the bay. Then, with tungsten-filament lamps ranging in gradual steps from 10 candle-power to 550 candle-power, or the nitrogen tungsten-lamp, the flaming-arc lamp, the



Saw-Tooth Windows Give Good Light (*Courtesy of Factory*).



Example of Fenestra Windows (*Courtesy of Factory*).

mercury vapor and quartz lamps ranging from 1,000 to 3,000 candle power, equipped with modern reflectors, the owner has an opportunity for selection sufficient to enable him to obtain satisfactory illumination. Any of these high-efficiency lamps with modern reflectors will average four foot-candles intensity for an energy consumption of one watt per square foot of area. Thus, if 100-watt tungsten-filament lamps with enamelled reflectors are employed to light a building, one lamp being allowed for every 100 square feet, the resulting illumination on the working level will average four foot-candles or more.

Treatment of Gas.

If illuminating gas is used, the owner should allow approximately four cubic feet of gas per hour for every 100 square feet of area to be lighted, provided efficient gas mantles and reflectors are employed. Gas lighting appliance manufacturers have designed inverted lamps for factory lighting in sizes consuming approximately 3, 4, 9, 14 and 18 cubic feet of gas per hour, respectively. Reflectors have been designed similar to those used in electric lighting for most of the gas lighting units.

One of the important features of modern factory lighting is the reflector equipment. Reflectors serve to control and direct the light rays to the point where they are needed. Reflectors for industrial lighting are generally made of steel with a porcelain enamel or painted aluminum finish. They are divided into two classes, known respectively as the bowl type and the dome type. The bowl type has three divisions, known as focusing, intensive and extensive, according to the light-distribution. The dome type reflector should be used only when the ceiling is high enough to permit the lamp to be installed out of the range of vision. In buildings with ceilings ranging in height from nine to fourteen feet, the bowl type reflector should be used, and the ratio of spacing distance to mounting height above the working place should be about 2 for the extensive form, 1.25 for the intensive, and 0.75 for the focusing.

A few points to be borne in mind in devising a lighting scheme are:—

First.—Adequate light on the working plane and none in the eyes of the workmen.

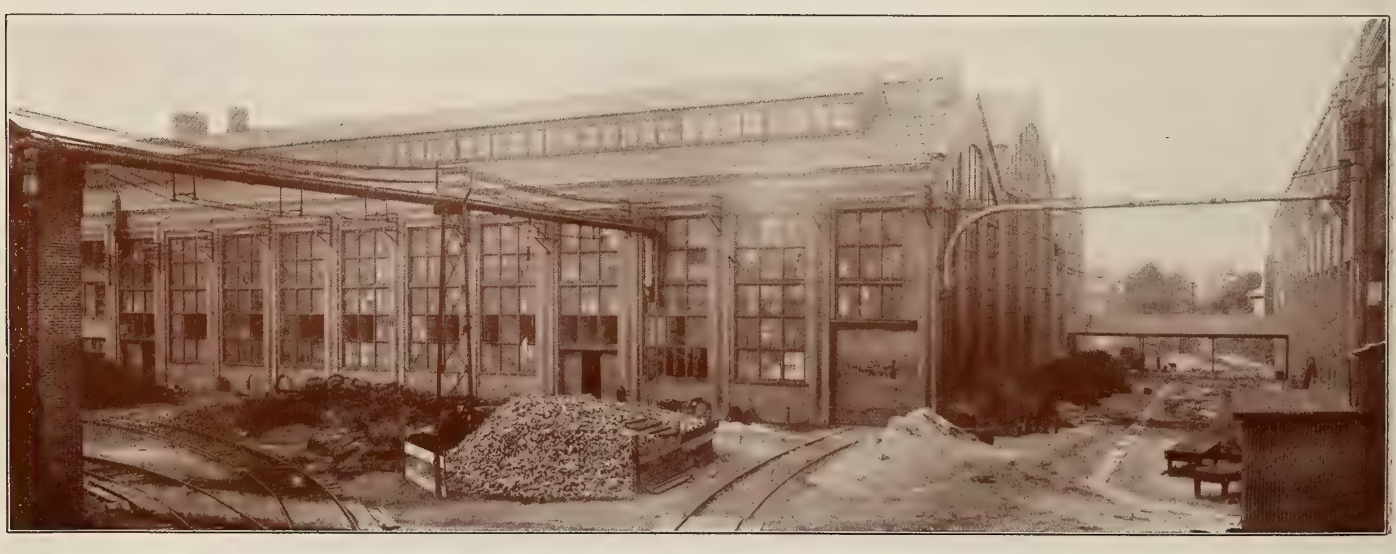
Second.—Proper selection and use of reflectors to control the light-distribution and afford protection for the workman's eyes.

Third.—The space between the working level and the ceiling should be moderately well lighted, thus avoiding the annoying and at times dangerous contrast between this space and the lower section of the room.

Fourth.—Uniformity of light-distribution and good diffusion of light are important factors.

Fifth.—Avoid spotted illumination and sharp shadows.

Sixth.—Permanence and continuity of service, simplicity in design, and low operating and maintenance cost should be thoroughly considered before a decision as to the lighting system is made.

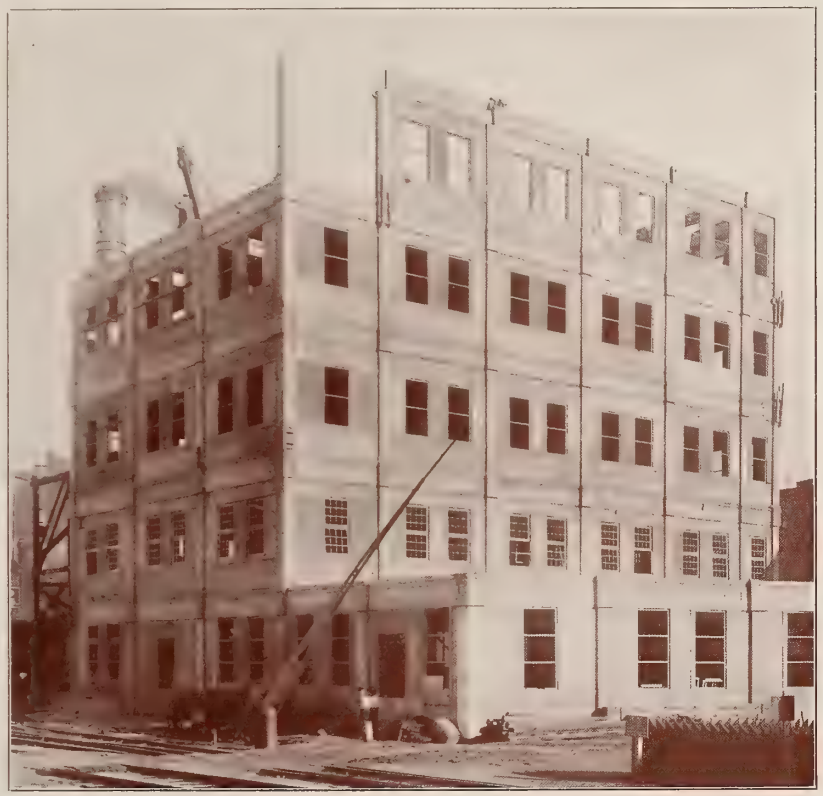


Sample of Concrete Tile Roofing Designed to Give Good Overhead Lighting (*Courtesy of Factory*).

CANADIAN FACTORY CONSTRUCTION IN 1914

By G. M. WYNN
Of T. Pringle and Sons, Limited

BUILDING construction for industrial purposes in Canada has altered to a marked degree of late years. The assured future of manufacturing in this country and the continued steady growth of legitimate progressive enterprises have, together with improvements in building design, made possible structures which are vastly ahead of those of a few years ago in strength, permanence, low maintenance cost, lessened fire risk and employees' comfort. To-day the manufacturer about to build or extend begins by retaining the services of an engineering and architectural specialist, and by deciding on a machinery lay-out which will give the required output at the lowest operative cost and with due provision for the needs of the future. A large measure of the success of a factory depends upon the attention given to this important matter; any architect can design a building, but that building, unless it is designed by a specialist with the different processes and flow of material as the first consideration, is very likely not to be economical, both in first costs and in future manufacturing costs.



Example of Unit Construction. The above is one of Five Factory Units. *(Courtesy of Factory).*

These points are thoroughly studied by the consulting engineer, together with the details of the handling of materials, both raw and finished, whether by cranes, conveyors of various types or trolleys, and from these data the character and design of the buildings are worked out.

The increasing cost of wood and the standardizing of reinforced concrete design lead in most cases to the use of the latter either alone or in conjunction with structural steel for building framework.

The typical factory building of 1914 will therefore be designed, in the first place, around the machinery lay-out. It will have reinforced concrete floors with beams and columns either of structural steel surrounded by concrete for protection against fire and corrosion or of reinforced concrete, the designs being worked out to suit the requirements of the case, and not by some manufacturer of reinforcing material whose primary object is to sell steel against his competitors.

The walls will be of brick or terra cotta, and will serve only as a curtain to keep out the weather, all loads being taken by the framework. The windows will be large, affording a maximum of daylight, and these may be as much as sixty per cent. of the whole wall area. They may be of rolled steel or of wood, depending on the various conditions such as adjoining fire risk or character of operations carried on inside Steel sash cut off much less light than wooden windows, and are of course much more fire-resisting, especially when glazed with wire glass. In very cold climates and in buildings where the air is full of moisture, winter sash must be used, and these in many cases detract considerably from the advantages otherwise to be gained by steel over wood.

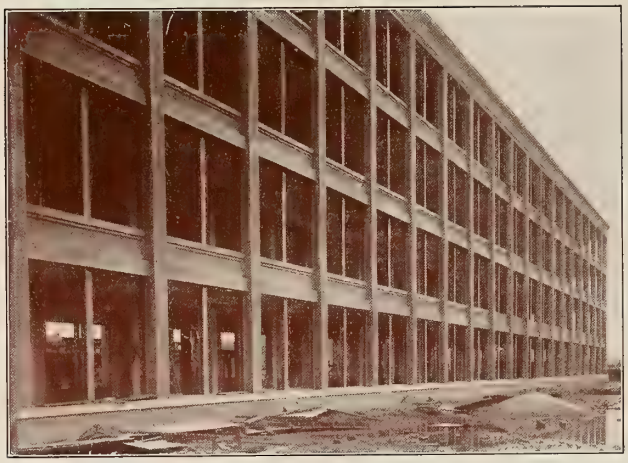
The roof, in the case of heated buildings, will pitch towards the centre and be drained by down-pipes. Such a roof is warmer than one pitching out, and is free from damage by icicles and snow-slides.

As the interior plan has been worked out beforehand, the exact position of all overhead piping and shafting is known, as well as the position of all machinery requiring to be bolted down, so that the requisite provision can be built into the concrete for their support.

Such a building will in itself be nearly fireproof, the risk being mostly confined to its contents. Every precaution will be used to minimize the fire danger, by use of automatic sprinklers, automatic fire doors on all interior door openings, and fire-proof enclosures around all elevators, stairs and other shafts. A fire, in any part of the structure, if not immediately put out by the sprinklers, will be confined to the department in which it starts, and will not endanger the rest of the plant.

Careful consideration will be given to the question of employees' comfort. Instead of lavatory and toilet accommodation being treated as a necessary evil and put in some dark corner, where they will take up the least amount of floor space, it will be ample, thoroughly well lighted by daylight and well ventilated. Plenty of cloak-room space with individual lockers will be considered a necessity, as will also, in a great many cases, rooms where employees may eat their lunches. Sanitary drinking fountains, supplied with pure water, will be placed at various points, ensuring freedom from the danger of the common drinking-cup and loss of time in going long distances. As a further aid to the health and efficiency of the employees, ample provision for ventilation for both summer and winter conditions will be made. There can be no doubt that such provisions for employees' comfort not only pay as regards better efficiency, but by making the plant attractive to the better class of help.

The previous planning of the interior layout will, as in the case of shafting, etc., permit of the proper location of lighting fixtures, which in practically every case will be



Good Example of Modern ConcreteConstruction for Industrial Plants

electric. These will be distributed with a view to economy, giving each worker enough light to carry on his operations and placed so as to do so to the greatest advantage. All wiring, whether for power or lighting, will be carried in conduits, which may be buried in the concrete or fastened up to the ceiling with clips.

The whole question of power will be investigated thoroughly as regards possible source, cost, equipment and distribution throughout the plant. The steam requirements of a manufacturing plant are very often a large determining factor as to whether an outside source of electric power will be used or whether a steam power plant will be built. In case the latter is selected it will be equipped with boilers, selected for the highest efficiency compatible with the duty required of them, and with labor- and coal-saving, ash- and coal-handling equipment, economizers, etc. As is found most suitable, the power generated by the engines will be directly transmitted through the plant by shafting, with rope, belt or chain drives, or converted into electricity and transmitted in that form to electric motors. Prevention of steam waste will be carefully gone into, exhaust steam from the engines being used for heating, and the water of condensation from this, and from processes requiring steam, being returned to the boilers.

A feature often overlooked or disregarded in the past, but which is to-day considered important, is that of architectural treatment. Most manufacturers consider well-proportioned buildings as an asset and a good advertisement, and look to their consulting engineers and architects to secure such results by giving particular attention to the matter of dignified designs suited to the surroundings and the character of the business carried on.

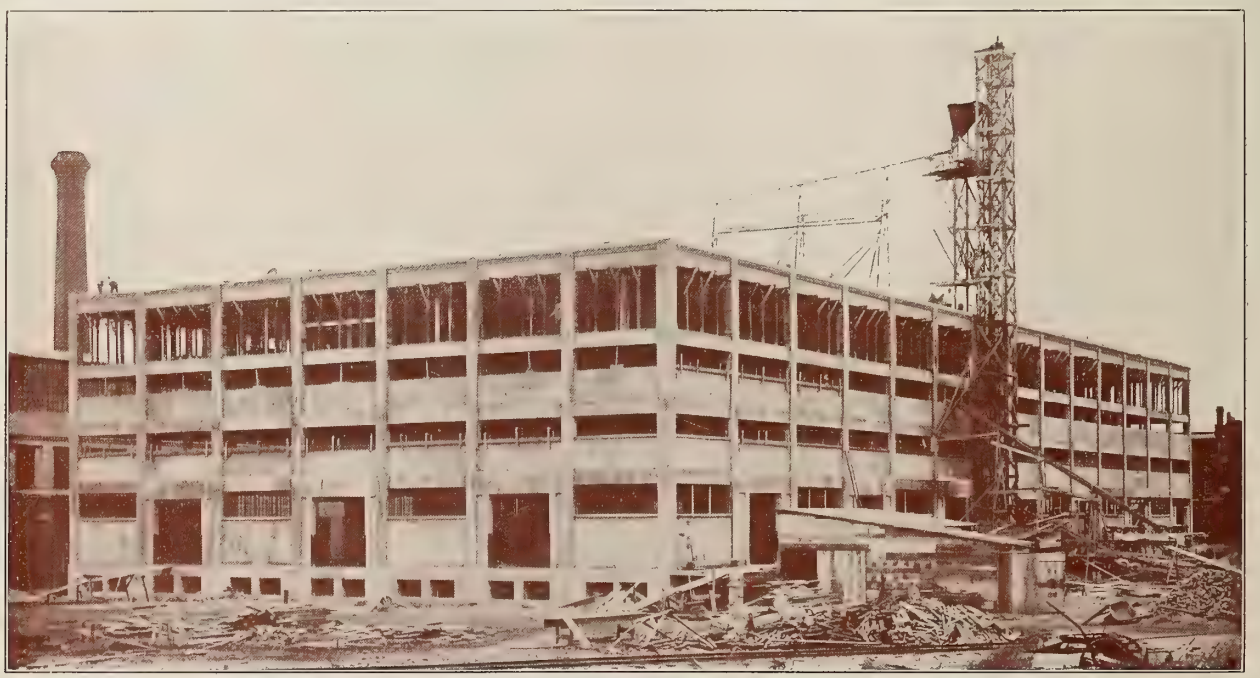
CANADIAN STEEL MANUFACTURING.

Engineering, London, England, says: "Prior to 1902, Canada made very little steel. The output advanced from 26,084 gross tons in 1901, to 182,037 gross tons in 1902. Five years later, in 1907, it had reached 646,754 tons, and five years later still, in 1912, it increased to 853,031 tons, the largest output in its history. It is quite probable that in the present year Canada will make nearly 1,000,000 tons of steel, or more than the United States made in 1879. The steel output of Canada is largely in the form of ingots, over 96 per cent of the total in 1912 being in this form, and less than 4 per cent in the form of direct castings.

"The largest two centres for steel in the Dominion are Ontario and Nova Scotia. In 1909 Nova Scotia led Ontario by 28,201 tons, in 1910 by 11,943 tons, and in 1911 by 20,623 tons. In 1912, however, Ontario forged ahead by 1,321 tons. Nova Scotia has within its borders the new and modern plant of the Dominion Steel Corporation, while Ontario has within its boundaries the large and modern plant of the Algoma Steel Corporation.

"Naturally the output of finished rolled forms of iron and steel in Canada increased in the same ratio as steel ingots and castings. In 1902 the total rolled output was 161,485 tons. In 1907 it had increased to 600,179 tons, and in 1912 to 861,224 tons, the maximum. Much the larger part of the total was steel—about 87.5 per cent. in 1912. Rails formed almost one-half of the total rolled output of the Dominion in 1912—over 49.2 per cent.

"It was not till 1902 that Canada began to manufacture steel rails on a large scale. In that year it made 33,950 tons. Its output in previous years had seldom exceeded 800 or 900 tons. In 1912 the rail output reached 423,885 tons, its best yearly record."



Concrete and Brick Construction. The Skeleton is Concrete and the Panels are Brick *(Courtesy of Factory)*

Protecting Factories from Fire

By
FRANKLIN H. WENTWORTH

Secretary National Fire Protection Association



Remains of a Fine Factory after a Fire

FIRE protection engineering is coming to be a profession by itself, but, after all, its chief distinguishing quality is common sense. The principal demand is that the architect and builder should have a consciousness of the fire hazard, for up to this time very few of them have thought much about it. With the thought of the importance of this item in their minds no grievous blundering is possible, and technical advice on specific features can generally be had without charge from fire protection engineers in the service of the various underwriters' inspection departments having jurisdiction.

It is the intent of this article to set out certain fundamental principles which may serve as a basis of approach for those who have as yet given no thought to the subject.

First Principles.

Experience in fire protection engineering suggests three points to be kept in mind in planning a factory:—

1. There should be as little combustible material as possible used in its construction and equipment.

2. Each floor should be absolutely cut off from every other floor and each section from every other section, so that fire may not communicate.

3. Every part of the factory should be equipped with fire extinguishing apparatus.

It is obvious that a factory of reinforced concrete will present certain advantages respecting the fire hazard over the slow-burning or "mill construction" type; although the latter is preferred by many manufacturers as presenting more convenient surfaces for the attachment of pulleys, shafting and machinery. Slow-burning construction is not undesirable if properly safeguarded and protected.

Use of Concrete.

The advantages of the use of reinforced concrete appear when we consider that with such construction every floor may, by avoidance of vertical openings through it, be made practically a fire wall. The floors being incombustible a fire in any story may be ordinarily confined to it. In the old type of factory, having open elevator shafts and belt openings from floor to floor, fire quickly ran from story to story, and was soon beyond the control of the firemen. It is essential that in all factories, of whatever type of construction, stairs, elevators and belts be placed in fireproof enclosures with openings to each floor protected by fire doors or shutters. If in addition to the omission of all vertical openings provision be made to drain the floors through scuppers set into the outside walls, the possibility of water damage to goods or materials on floors below is much lessened. The standard form of brick or concrete stair and elevator tower may also serve this purpose. If the building as a whole is of fire-resistive material it naturally presents less fuel upon which a fire may feed, and there is therefore less chance of a serious fire if for any reason the extinguishing agents are temporarily disabled. It must be remembered, however, that buildings are often destroyed by the burning of their combustible contents, and in all types of mills and factories the floor areas should be kept down to the minimum limit consonant with convenience and economic operation of the plant. These areas should be divided by fire walls, all openings in which should be protected by standard self-closing fire doors. These precautions minimize the danger of a rapid spread of fire horizontally. All mill-constructed buildings, if of large area, should be divided into sections by special fire walls extending above the roof and out beyond the walls on either side.

Window Guards.

Whether exposed to possible fire from adjacent buildings or not, there should be no wooden frames or trim about the windows. Window frames should be of metal fitted with sashes of wired glass, for under strong draught fire frequently creeps up outside from story to story by means of the windows, consuming the wood trim and igniting contents of the building on each floor. Metal window frames are now so constructed that they will stand very considerable exposure to fire without buckling or releasing the glass, and their liberal use in all varieties of buildings is greatly to be desired. The sashes may be operated as conveniently as those of any other window.



This Photo shows how a Factory can be Gutted by Fire.

It will be observed that all the suggestions made for fire walls, stair and elevator enclosures and window openings are as applicable to buildings of mill or slow-burning construction as to those of concrete. They should be followed, as far as possible, in all factory construction and in mercantile buildings as well.

Mill or slow-burning construction presents its own inherent problems. Enough wood must be used to insure strength and stability, but superfluous wood should be avoided. It matters very much as to just how the quantity of timber used may be disposed. The guiding thought of the architect should be to present to fire attack the least practicable amount of wood surface.

Avoid These Fire-Traps.

For example, a mill planned with heavy beams eight to eleven feet on centres of continuous spans from wall to post or post to post of from twenty to twenty-five feet is infinitely more desirable than one of miscalled mill construction having longitudinal girders resting upon posts on which girders are placed four feet or less on centres. The latter construction not only adds to the exposed wood surfaces which may be attacked by fire, but the disposal of the timbers obstructs the action of sprinklers and prevents the sweeping of hose streams from one side of the mill to the other.

No architect with the consciousness of the fire hazard will ever plan for either manufacturing or mercantile occupancy those undesirable fire boxes known as "light-joisted" buildings. Light joists or rafters two or three inches in width, spaced from ten to sixteen inches on centres, ignite and burn like kindling. Their numerous corners furnish projections for easy ignition. The menace of such construction is generally aggravated by sheathing under the joists. This provides a series of wooden cells, pervaded with concealed spaces in which fire may riot and lodge and dodge extinguishment until the floor or roof is burned through. By the same token partitions of light wood should be avoided. Timber posts offer greater resistance to fire than wrought-iron, steel, or cast-iron pillars, and are preferable in mill construction. Desired floor stiffness between beams may be secured by making floors of two-inch joists on edge spiked together, the thickness of the floors varying with the loads and span from five to eight inches or more. This floor being practically a single unit, provision must be made for longitudinal contraction by making a continuous joint in the under flooring at intervals, with, of course, arrangement for tying the building together. One thickness of hard, close-grained floor boards laid over planks with two layers of resin-sized paper between is a good floor. A method that is growing in favor in high class factories is to lay a board flooring diagonally or at right angles to the plank, and over that a top floor of birch or maple laid lengthwise. This intermediate floor gives great resistance to the lateral strain or vibration. It can be made of cheap lumber, and in many factories is well worth the additional cost.

It is obvious that where steel beams or posts are used they should be properly protected. As steel or wrought iron, when heated, will fail by buckling or bending before an equivalent beam or post of wood will be dangerously affected, it is of importance that steel members essential to the stability of the structure be fireproofed; otherwise a fire in a lower story may bring down in wreck everything above it.

Inflammable Goods.

There is another matter which should never escape consideration in building a factory. This is the special fire hazard incident to the character of the factory product. The picker room of the cotton mill is a luminous example. Here fire frequently occurs from foreign substances striking the pickers and igniting, by the accompanying spark, the inflammable cotton. Sufficient statistics are now available on almost every well-known manufacturing process to indicate just what elements in such processes are especially suscept-

ible fire. Bulwarked by this knowledge, it is prudent to segregate from the principal values of the factory all special processes demonstrated by experience to be especially hazardous. This does not mean that such processes must be carried on in separate buildings at the cost of travelling time and inconvenience. The problem of segregation can now be met without shifting the process out of its logical place in the routine of manufacture. In a fireproofed factory only a separate room, or at best a separate floor, is needed. The manufacturer who, once when he had a fire in some room where volatile oils, for example, were used, commonly lost half his plant, or at any rate so drenched his premises with water as to make a fortnight's suspension necessary, can now, if he likes, so dispose that hazard that he can have a fire every other day without disturbing the other parts of the factory. The modern fireproof room equipped with automatic sprinklers, having a slightly pitched floor and scuppers at the walls, can be flooded for fire extinguishment without a drop coming through below. The water runs as harmlessly from it as from the deck of a ship.

In mill construction it is easy to fireproof the floors and ceilings of any room in which quick, flashy fires are liable to occur. In the picker rooms of cotton mills a similar protection to that above suggested for steel beams is often used, the metal lath being applied directly to the under side of the planking and around the beams.

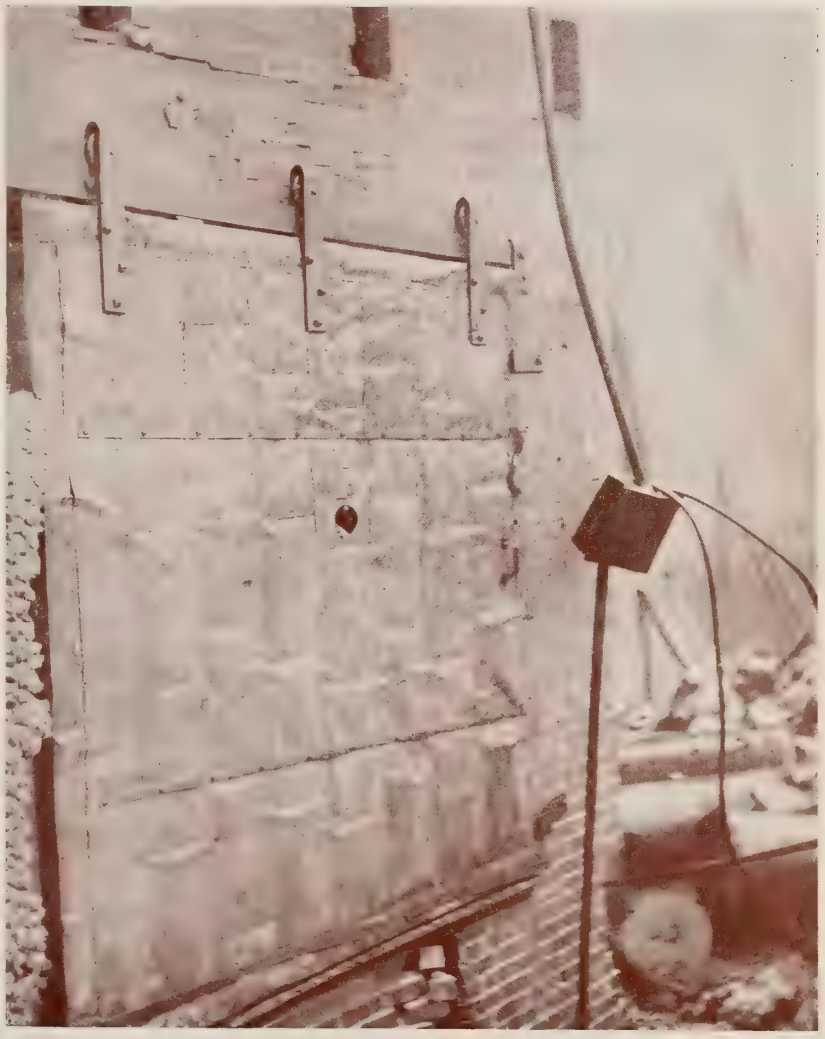
With the general outline so far given for his guidance, the architect or builder will have before him the main points in building construction for the protection of his clients respecting the fire hazard. A consciousness and proper consideration of them may save many dollars in insurance premiums, and at the same time provide an attractive risk that with suitable further protection can hardly under any circumstances prove a total loss. There remains, however, after observance of the points of construction consideration of the fire extinguishing agencies. These may appear to be outside the proper province of the architect, but his knowledge of their character and importance will help vastly in the convenience of their installation, and a little preliminary thought about them may save much tearing out and minor reconstruction. The architects who led the van in providing shafts, channels and run-ways for electric wires before such conveniences were demanded by inspectors, saved their clients an incalculable amount of annoyance.

It is obvious to any well-informed person that the manufacturer who to-day builds without provision for automatic sprinkler protection almost wilfully endangers not only his plant, but the lives of his employees. It is not sufficient that the building be fireproofed. Fireproof is but a relative term. Buildings of fireproof construction are often wrecked and ruined by the burning of their contents. Provision must be made for the extinguishment of a fire the moment it starts. Automatic sprinklers will do this if properly installed with an adequate water supply. Where a sprinkler system fails it will in almost every case be found to have been somehow neglected previous to the fire. Automatic sprinklers with their increasing adoption, have almost eliminated a kind of fire which used to be especially destructive, namely, explosions of gaseous products generated by previous slow and imperfect combustion in stock or goods. Automatic sprinkler protection should, therefore, be considered imperative and intelligently provided for, and all concealed spaces or places difficult to protect properly by such a system should be studiously avoided. Vast inconvenience may be obviated by architects and builders giving thought to this point. Ample water supply for the average factory demands two independent sources. One should be by gravity and of sufficient volume and pressure to afford a good supply until the secondary supply can be drawn upon. Pumps, tanks and other details are not within the scope of this article; nor are fire pails and hand chemical extinguishers which need no advance provision, being placed in any convenient or desirable location.

The architect should give thought to a stand-pipe system, however, in factories of three stories or higher. They are invaluable for carrying water for hose streams to upper floors, thus making unnecessary the handling of hose on ladders or in stairways, which is difficult, and often entails costly delay. They should ordinarily be placed in the main stair towers, or at any rate on the opposite side of the wall from the rooms or buildings they are designed to protect. Where buildings are near enough to each other for the roofs to afford vantage points for use of hose streams, stand-pipes should be extended to supply roof hydrants.

In factories having loose combustible stock in process, an equipment of small linen hose on each floor is invaluable. It is best to supply this from an independent system of small pipes. It may then be available in case water is temporarily shut off the sprinklers, or in final extinguishment of smouldering sparks after sprinklers have been shut off to save excessive water damage.

There are many other details to be considered in properly protecting a factory from fire, but they are details in which the fire protection engineer is not dependent upon the provision or co-operation of the architect.



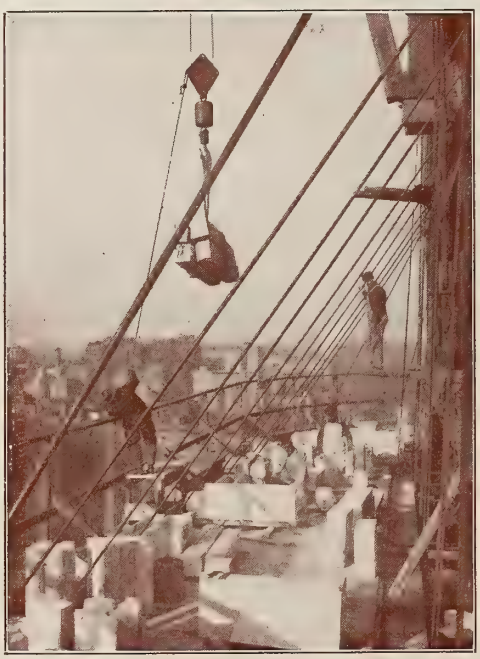
Showing how a Standard Fire Door Fights Fire

THE MANUFACTURERS AND THEIR BUILDING LOANS

By H. M. P. ECKARDT

IT is understood that a number of large manufacturing companies which made extensive additions to plant and equipment in the last year or two have yet to float the bonds or other new securities to represent the same. Funds were procured for the construction expenses through negotiating temporary loans at the banks—the understanding being that the loans would be cleared off as soon as the condition of the money market made it practicable to place the bond issues with the investors. In making construction loans of this type the banks were deviating a little from orthodox principles; and, needless to say, only those industrial concerns which enjoyed the soundest credit would be enabled to borrow in this way. One of the basic principles of banking has it that bankers deriving their funds largely from deposits, repayable on demand or at very short notice, shall not lend them on fixed or immovable property. The chartered banks are supposed to confine themselves rather strictly, when making loans or discounting paper, to security composed of salable merchandise or collectable debts. So it will be seen that loans of which the proceeds go into brick and mortar or other forms of fixed property and which are secured in whole or in part by the property so acquired are at variance with the principle just quoted.







Between Earth and Sky. Daring Steel Workers Engaged in the Difficult Task of Joining the Skeletons of Huge Buildings.

However, in spite of this fact, construction loans have been much in evidence during the era of great activity which ended in 1913. They were in evidence before the outbreak of the Balkan war, in October, 1912, partially closed the London market to our new industrial issues. Even when it was possible to float bonds or debentures at will on fairly satisfactory terms, some of the large manufacturing companies had recourse to bank loans for building purposes. As the construction work and the expenditures in connection therewith were to be spread over a considerable time—perhaps a year or a year and a half—it seemed advantageous to borrow from banks as the need arose, and then at or near completion of the works to place an issue of new securities and retire the bank loans. If an issue were made prior to the commencement of the work and all necessary funds thus provided in advance there would be some loss of interest—the interest on the outstanding bonds would run relentlessly on, while a large part of the proceeds would be lying in the banks earning little or nothing.

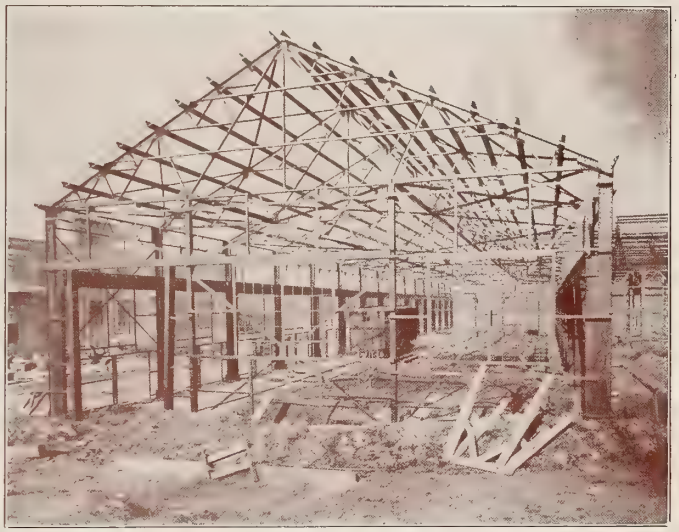
And there is another point in favor of deferring the issue or marketing of the securities until the new works were approaching completion. If the issue is deferred it is possible to include the outlay on the new works in the statement of assets, all of which are in position, or nearly in position, to earn profits; and the bond issue, being better supported or represented by such assets, should have more attraction for the investing public.

Then of course there is the matter of the money market. The executive officials of the industrial company might be of the opinion that by waiting bonds could be put out at a lower interest rate. However, it should be said in this connection that the executive officers of the large concerns accustomed to market bonds in London do not delay unreasonably in hopes of getting better prices.



The Steel Work of the New Plant of the Canadian Rolling Mills, Montreal

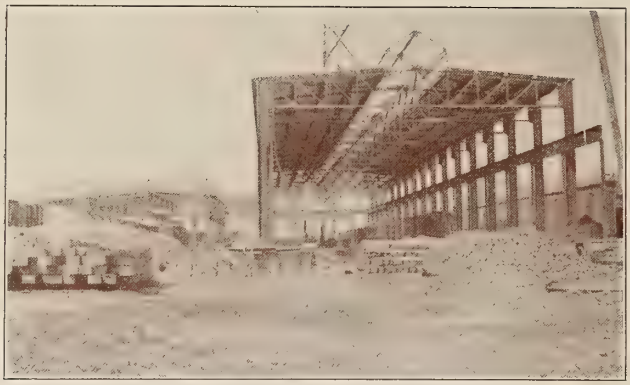




Views of Steel Interiors



Steel Work Completed for Factory *(Courtesy of Structural Steel Co.)*



New Steel Car Shops—C.P.R. Montreal

They are not like the treasurers of many of the smaller municipalities in this respect. A goodly number of the treasurers of small municipalities appeared to be of the opinion, up to 1913, that it was always possible to get a better price for their debentures by waiting. It did not seem to occur to them that the market might get worse; and when their bankers suggested it, they were disposed to laugh the suggestion to scorn. As a rule the parties responsible for the finances of the big industrial concerns understand the securities markets better, and they take the advice of the money market experts with more respect. So they do not as a rule neglect to take advantage of favorable opportunities of disposing of issues of new securities.



Adjustable Scaffold Show ng Men Working on Both Sides at Once

During the whole of 1913, and in the last four months of 1912, money market conditions were unfavorable for issuing new bonds or stocks. And as there was no assurance that flotations could be made at an early date, construction loans made by the banks in this period had the appearance of tieups to a greater extent than usual. Money being at the same time comparatively tight, the bankers would be disposed to limit these advances to the smallest possible sum. Fortunately, since the advent of 1914, the international money market situation has improved greatly. The era of high rates of discount has been succeeded by another in which interest promises to be extraordinarily low. It can scarcely be said as yet that there is a free market in London for our industrial securities. Other factors than the tight money have affected the market adversely. There is quite a long list of industrial concerns, organized in Canada for home operation or organized in England for operation here, which have discontinued dividends on preferred stock, defaulted bond interest, or passed definitely into the hands of official liquidators. In numerous instances British investors have suffered losses in connection with these concerns. And while Canada is not really to blame in some of the cases, the fact that the wrecked or disabled companies bore Canadian names reacted against our industrial securities generally in the British market.

The market for Canadian industrials in the United Kingdom is dull at present for another reason. In the five-year period 1908 to 1913, inclusive, the British investor was, so to speak, carried off his feet by Canada's attractions. The average investor in the British Isles prides himself, as a rule, on his skill in balancing his investments. His policy is to put so much in home securities, so much in Americans, so much in Canadians, so much in Mexicans, Argentines, East Indians, Australians, and so on. But in the period just referred to he allowed himself to put perhaps an unusually large proportion of his available funds into Canadians. Even if all his Canadian holdings continued to give satisfaction he would be disposed to turn his attention elsewhere for a time in order to restore the balance or equilibrium. And if it happened that one or two of his Canadian bonds turned out unsatisfactorily his disposition to look elsewhere would be increased.

Owing to the above-mentioned and other factors, the English market for our industrial bonds has been rather unfavorable of late. While an improvement has been noted since the monetary stringency became a thing of the past, the British financial houses are still exercising discrimination—only those issues which can pass severe tests are open to acceptance, and even they are forced to pay comparatively high rates of interest. Under the circumstances it is to be expected that a few big companies with high standing will be able to arrange for London issues, and thus take up their special loans at the banks. Then it is well known that a number of the large concerns have been placing bonds on the Canadian market to a limited extent in the recent past. The bond houses in Montreal and Toronto have been making some sales of bonds issued by companies in good repute on a basis of 6 per cent. net to the purchaser, and in a few instances on a basis of 6¼ or even 6½ per cent. Such sales as have been made in the domestic market have tended to cut down the bank loans. And the expectation is that the unsold portions of recent industrial issues of this kind should go off more quickly in the course of a couple of months or so, if, as is expected, money becomes more plentiful.

Independently altogether of the bond issues, the construction loans have been coming down. With the falling off in general trade the manufacturers have found, as they found in similar periods of the past, that they do not need so much capital for active operations. In various instances plants have been shut down (more or less indefinitely) and staffs of workmen have been reduced. The weekly pay roll absorbs a smaller amount of cash. At the same time purchases of raw material have been reduced and expenses generally cut down; the amount of capital in accounts receivable also is in process of reduction. So there has been already a considerable release of capital from the business; and if present con-



Canadian Locomotive Company's Plant at Kingston

ditions last there will no doubt be further release of capital in this way. To a certain extent the capital thus recovered would be available for reducing the special construction loans, if such were in evidence.

The smaller companies or businesses which do not make a practice of making public issues of bonds or other securities would perhaps in some cases be able to take up the greater part of their special loans in this way and through making private financial arrangements.

Doubtless the officers of some of the larger concerns which have just completed large additions to plant wish now that they had deferred the work for a couple of years. Undertaken while the boom was still running strongly the works have been costly. Labor was scarce and demanded high wages, materials were expensive, and the rate of interest on the loans was high. Finally, just as the works were nearing completion, the trade reaction set in, with the result of condemning a part of the new equipment to enforced idleness. Of course the demand will revive sooner or later, and when it does so the companies referred to are in position to take full advantage; but in the meantime it must be rather heartbreaking to think of the large increase of capitalization for the purpose of acquiring at much cost a plant destined to be idle for an indefinite time.

If one could but read the future he would do things differently. Now conditions are much more favorable for building a new plant. The big cities are overrun with unemployed workmen—men can be procured on terms decidedly more favorable for the employer than those prevailing in recent years. Materials and equipment can be bought at concessions, and money has become cheaper. Quite probably an extensive plant begun now would be completed, or nearly completed, by the time the general demand for the products to be manufactured increased to such an extent as to call for the operation of the new plant. On the other hand, it is to be remembered that more courage or confidence is required to start work on a new plant when trade is falling and orders scarce. When prosperity rules and orders are pouring in, beyond the capacity of the existing works, it is easy to see the advantage of enlarging. But when the opposite conditions prevail the directors and the management may be influenced by the pessimistic attitude of business men in general. They may consider that trade is likely to be quiet for some time to come, and that as the existing plant can take care of all orders forthcoming, it is better to postpone all capital expenditures until times improve.



New Plant of Edmonton Brewing and Malting Co., Edmonton

REMOVAL OF AGENTS FROM AGENCY STATIONS.

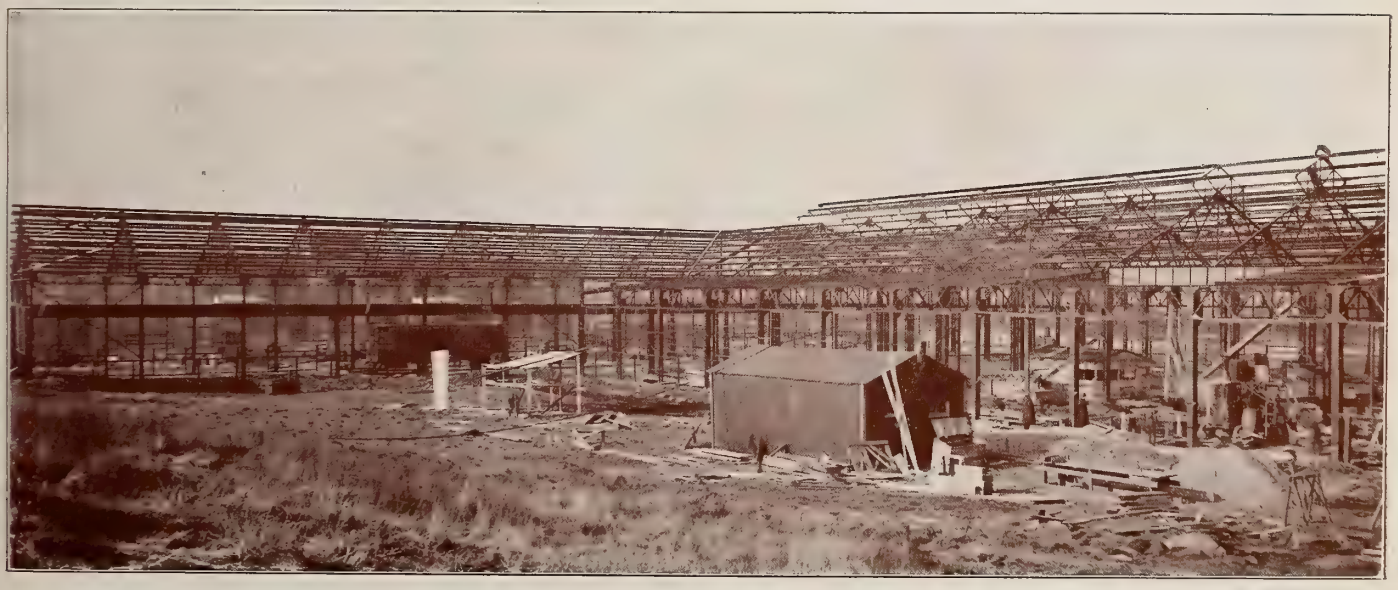
On January 31st, 1914, the Board of Railway Commissioners issued General Order No. 119 as follows:

"The Board doth order that, whenever a railway company subject to the jurisdiction of the Board, intends to remove a regular station agent, it shall first notify the local municipality or Board of Trade of its intention to apply to the Board for an order permitting such removal. Such application and notice shall state the grounds on which such removal is sought to be justified and shall, in each instance, show the gross earnings at the station in question from passenger as well as freight traffic and express business during the previous year."

"It is further ordered that no regular station agent shall be removed until such removal be first authorized by the Board."

On objections of the railways, a hearing was held in the matter on February 17th, 1914, and a judgment issued on February 19th upholding General Order No. 119 and stating further that:

"No general rules can be laid down. Each case will have to be dealt with on its merits. The intention of the Board in issuing General Order No. 119 was, that it should apply only to cases where the company desired to close a regular agency station and make that station a flag station. It was not intended to apply to cases where a special agent had been temporarily employed to look after some particular class of business which was of a temporary nature."



The Steel Bones of a Factory *(Courtesy of Structural Steel Co.).*

HEATING AND VENTILATING A FACTORY

Description of an Installation in a Big Plant

By R. T. COE

Manager of the Canadian Sirocco Company

AS the heating and ventilating of factories is a problem which confronts all manufacturers, the following description of the installation of a system should be of interest. The building in question is a four-story extension, 505 x 75 feet, to an existing plant.

The main building is heated by direct radiation (cast-iron wall sections) with forced circulation hot water as the heating medium. The same system was originally contemplated for the addition and no other was favorably considered up to the time that competition figures were compiled.

The building is reinforced concrete construction throughout, the exposure largely glass surfaces. Every supporting column in the building is also a hollow air duct. The columns are octagonal in shape and have a three-bar vertical reinforcement bound together in each corner.

The problem of pouring the concrete columns was successfully worked out by the engineers co-operating with the general contractors. In the centre of each column was placed a permanent light gauge sheet steel duct, which was properly centred and braced, and the wooden forms fitted around same. The duct was then filled with fine dry sand to prevent its collapse due to the pressure of the liquid concrete mixture on its exterior. The air outlet openings were provided for the making of the wood forms for the columns. After the concrete columns were poured, openings were made at the ground floor line and the sand removed.

Extensions to the elevator pent houses were made to accommodate the two sets of apparatus. Fresh air is admitted to the apparatus through louvre dampers and recirculation is effected up the elevator shaft.

The heating ducts leading from the fan outlets to the tops of the columns, are entirely above the roof. They are of reinforced concrete covered with hollow tile, tar paper, and built-up gravel and tar roofing material.

In figuring the job, due allowance was made for the fact that the air had to be forced down five floors instead of upward, and ample pressure was provided.

The ground floor is mostly built over the water so outlets on this floor are located near the floor line. The columns at each end of the building are provided with two outlets—each discharging toward the exposed surfaces. Other columns have but one outlet each, there being two rows of columns.

As the fresh air is taken in above the roof and the building is right on a river, the ventilation feature is as near perfect as could be without air washers. Especially was this feature appreciated on the ground floor, where hundreds of machines are throwing off heat and oil fumes constantly, and hundreds of men are of necessity employed to run the machines.

Hot water at 180 degrees is forced from the power house across the street through an underground tunnel, thence upward to the two sets of apparatus.



Showing the Skylights on the new C P.R. Train Sheds at the Windsor St. Station Montreal. This is one of the Largest Skylight Contracts ever let in America and was awarded to a Canadian Firm—The Metal Shingle & Siding Co. of Montreal. Over 100,000 Feet of ¼-inch Ribbed Wired Glass, 30 Tons of 16-oz. Cold Rolled Copper and over 100 Tons of 16-guage Lead Coated Bars were used on this Contract.



Typical Slashing where worst fires start.



Trees swept bare of foliage by Forest Fire.

While steel and concrete form the greater part of modern factories, quantities of various woods are still required for interior fittings, floorings, etc. Much larger quantities are needed for raw material by wood-working and other plants.



A fine timber valley made desolate.



The Raw Material for many factories disappeared in this fire.

Canadian manufacturers should realize that our reserves of timber are being exhausted by cutting and by fire much faster than they are being replenished. Scientific forestry is the only thing which will save us from wood famine in the future.

THE GROWTH OF THE PULP AND PAPER INDUSTRY

By E. S. McPHAIL

Of the Census and Statistics Office.

From a paper read before the Pulp and Paper Manufacturers at their annual meeting at Montreal, Feb. 26th, 1914

Schedule	No.	Capital	Wages	Materials	Product
Pulp and Paper, 1911	79	$54,718,415	$5,162,150	$11,125,794	$23,732,556
" " 1901	56	19,301,919	2,405,306	3,711,764	8,774,647
Increase, total	23	35,416,496	2,756,884	7,414,030	14,957,909
Increase, per cent	..	183.48	114.61	199.74	170.46
Average per establishment, 1911	..	692,638	65,344	140,833	300,412
" " 1901	..	344,676	42,952	66,281	156,590
Cardboard, 1911	7	831,482	104,143	251,607	506,077
" 1901	3	235,540	34,461	73,907	147,000
Increase, total	4	595,942	69,682	177,700	359,077
Increase, per cent.	..	253.01	202.20	240.43	244.27
Average per establishment, 1911	..	118,783	14,878	35,944	72,297
" " 1901	..	78,513	11,487	24,636	49,000
Paper, 1911	35	23,104,560	2,895,717	6,510,886	14,109,014
" 1901	28	7,507,819	1,191,038	2,170,770	4,380,776
Increase, total	7	15,596,741	1,704,679	4,340,116	9,728,238
Increase, per cent	..	207.73	143.12	199.93	222.06
Average per establishment, 1911	..	660,130	82,735	186,025	403,114
" " 1901	..	268,136	22,537	77,528	159,313
Wood Pulp, 1911	37	30,782,373	2,162,290	4,363,301	9,117,465
Wood Pulp (all processes), 1901	25	11,558,560	1,179,807	1,464,087	4,246,871
Increase, total	12	19,223,813	982,483	2,899,214	4,870,594
Increase per cent	..	166.31	83.27	198.02	114.68
Average per establishment, 1911	..	831,956	58,440	117,927	346,417
" " 1901	..	462,342	45,192	58,563	169,875

This table, limited in scope and presentation of facts as it may be, yet indicates that the paper and pulp manufactures are in a healthy, progressive state. In 1901 a population of 5,371,315 made it possible to profitably produce $8,774,647 worth of paper and pulp, while in 1911 for a population of 7,206,643 the production aggregated $23,733,556. The gain in population in the decade was 13.36 per cent., and in pulp and paper production 170.46 per cent. What has made possible such tremendous expansion? If the increased population had used paper and pulp only in the same ratio in 1911 as it did in 1901 the value of the product required would only reach twelve million dollars, or if we confine our review to paper only six million dollars worth instead of fourteen millions would have sufficed.

The Cost of Production.

The table also enables us to see at a glance that cost of labor and materials have increased in about the same proportion as has the value of production. The cost of labor alone increased by $22,392 per plant, or 52 per cent. from 1901 to 1911. The average wages per person of the 6,361 persons in 1901 employed in the production of pulp and paper was $378 as compared with an average wage of $517 for 9,996 persons in 1911. A further deduction from these statistics is, that the net proceeds for the whole industry (excluding depreciation of plant, renewal charges, etc.) was 13.6 per cent. in 1911 and 13.7 per cent. in 1901.

But great as has been the progress of production in the pulp and paper industry between 1901 and 1911, statistics show us that the progress, although excellent, did not keep pace with demands. In 1909 we imported paper and paper goods to the value of $3,581,807, in 1910 the value was $4,580,282, in 1911 it reached $5,454,910, in 1912, like Bruce's spider, it climbed higher still, reaching $6,359,896, while in 1913, emulating, no doubt, the high cost of living, it scaled the height of $8,194,025.

Our exports were in 1908 $3,503,296, $3,469,713 in 1909, $3,156,096 in 1910, $3,912,196 in 1911, $3,867,119 in 1912 and $6,324,810 in 1913. Having the labor, the natural resources and accessible markets, why we need to import so heavily is a question for statistical investigation.

The following statistics are of interest:—

Exports of Paper Produce of Canada.

	Fiscal year March 31, 1913.	Nine months April-December, 1913.
Wall paper	$59,174	$24,301
Felt paper	38,052	49,279
Wrapping paper	100,612	477,153
Printing	5,692,126	7,975,994
Paper N.O.P.	434,846	375,242
Total	$6,324,810	$8,901,969

Imports of Wood Pulp.

	Fiscal year March 31, 1913.	Nine months April-December, 1913.
Wood pulp	$270,608	$251,036

Exports of Wood Pulp Produce of Canada.

	Fiscal year March 31, 1913.	Nine months April-December, 1913.
Wood pulp chemically ground	$2,100,842	$1,996,952
Wood pulp mechanically ground	3,408,702	2,742,173
Total	$5,509,544	$4,739,125

Value of Paper, all Kinds, Imported into Canada from all Countries during the Five Fiscal Years ended March 31st, 1909-1913.

	1909	1910	1911	1912	1913
Albuminized and other papers and films chemically prepared for photographers' use	$102,508	$134,558	$159,204	$201,665	$204,921
Bags or sacks printed or not	26,379	28,493	29,171	55,725	52,225
Cards for playing	64,842	78,204	88,344	109,575	129,838
Cardboard not pasted or coated	20,992	26,877	42,447	70,045	82,066
Envelopes	56,837	79,245	84,573	91,268	117,080
Felt board	40,533	8,907	7,205	7,122	11,700
Hangings of wall paper, including borders	217,158	274,991	313,051	343,100	467,759
Leather board, leatheroid and manufactures of	20,536	32,777	26,930	47,521	50,915
Mill board not coated or pasted	50,872	49,098	74,645	58,739	100,009
Union collar cloth paper in rolls or sheets, glossed, finished or not	1,571	2,532	2,029	1,042	1,837
Pads not printed, papier mache ware	7,884	6,225	2,718	10,542	8,468
Paper, manufactures of, not otherwise provided for	1,051,424	1,327,799	1,569,087	1,821,936	2,482,760
Paper matting when for use in Canadian manufactures	.....	.....	.....	.....	890
Patterns, boot and shoe, manufactures of paper	6,455	2,599	9,730	23,051	15,163
Printing paper (for newspapers) in sheets or rolls valued at not more than 2¼ cents per pound	.....	41	56,486	146,258	152,160
Printing paper not otherwise provided for	374,502	462,212	631,810	616,372	644,131
Ruled and border and coated papers, boxed papers and papeteries	100,381	168,567	221,402	300,161	328,777
Strawboard, not pasted or coated	25,238	28,744	54,669	61,221	108,271
Tarred and other building papers, not otherwise provided for	294,664	345,795	396,083	470,944	687,577
Window blinds of paper of all kinds	.....	115	593	194	505
Wrapping paper	77,666	88,453	96,247	138,958	221,746
All other kinds	77,666	1,434,050	1,605,486	1,684,456	2,325,227
Totals	$3,581,807	$4,580,282	$5,454,910	$6,259,896	$8,194,025

DEATH OF GEORGE WESTINGHOUSE.

George Westinghouse, one of the greatest inventors of modern times, known all through the world as the inventor of the Westinghouse air brake and many other devices and appliances which have completely revolutionized modern methods of transportation, died in New York on March 12th.

In addition to his famous air brake Mr. Westinghouse also made other inventions in railway signals, steam and gas engines, steam turbines, and electrical machinery. He was the pioneer in introducing alternating current machinery in America, which made possible the electrical transmission of water power. He established large works in the United States, England, France and Germany for the manufacture of air brakes and electrical machinery, and became the head of corporations representing a capitalization of more than $100,000,000 and giving employment to more than 25,000 men. In recognition of his eminent services to science and industries, foreign governments conferred decorations upon him, scientific societies made him honorary member, and Union College conferred upon him the honorary degree of Ph.D.

RATES AND SERVICE TO CENTRAL AND SOUTH AMERICA.

When the contract between the Royal Mail Steam Packet Company and the Government for a service between Canada and the West Indies was announced, the impression was created that the service would cover ports in Central and South America. In fact, the statement was made that through bills of lading would be issued from any Canadian point of shipment to any port in Central or South America, which are regular ports of call for any of the steamships employed or controlled by the contractors or other services, and which make regular connections with the service contracted for. It has since been ascertained that the service is confined to Venezuela, Columbia and Panama, and that there is not much likelihood of a service being established to points further south.

The following information concerning the service from New York is furnished for the benefit of those who desire to reach this market:—

Barber & Company, steamship agents, Whitehall Building, 17 Battery Place, New York, have three sailings per month for the River Plate. Time of passage, twenty-six days. They are prepared to quote rates from New York to Montevido and Buenos Ayres on application.

The Houston Lines, represented by R. P. Houston & Company, 17 Battery Place, New York, advise that their steamers to River Plate ports proceed direct from New York without calling at the Brazils, the first port being Montevideo, then Buenos Aires and the up-river ports in the Rivers Uruguay and Paraguay. They are also prepared to quote rates on application. Their rates are subject to change without notice. They maintain a regular service of two steamers per month, the April sailings being on the 15th and 28th.

The Lamport & Holt Line, represented by Busk & Daniels, 301 Produce Exchange, New York, also have direct sailings.

These firms will all be glad to furnish any information desired in regard to rates and service, or the same information may be had on application to the Transportation Department, C.M.A.

TRADE DISPUTES DURING FEBRUARY.

The record of the Department of Labor for February shows that there was a pronounced decrease in the number of days lost through strikes and lockouts as compared with the previous month, although the number was somewhat larger than for the corresponding month of last year. The decrease was largely due to a settlement of a strike of shoe machine workers in Quebec, about three thousand employees returning to work on February 14. There were altogether seven disputes in existence in Canada during February, as against five in January and nine in February of last year. About twenty-three firms and 4,400 employees were involved in these disputes. Approximately 66,937 working days were lost as compared with 117,450 during January, and 42,880 during February of last year. Three disputes commenced during February, none of which were serious from the standpoint of numbers affected. They were all, moreover of short duration. The dispute of coal miners on Vancouver Island and garment workers at Montreal remained unsettled at the end of February.

TRANSPORTATION

By J. E. WALSH

THE last issue of INDUSTRIAL CANADA contained a very complete comparison of the express and parcel post rates. At that time the latter service was confined to parcels not exceeding six pounds. On March 5th the weight limit was increased to eleven pounds. The additional fee of five cents on each parcel mailed for local delivery in places where the letter carrier is not in operation was also eliminated.

The insurance of packages will become operative on the first day of May. It will be observed that, in many instances, the charges for express service are lower than the parcel post rates, and when the service of the express companies is taken into consideration it is hardly to be expected that the postal service will be used in preference to the former between such points where there is a pick-up and delivery service.

The Merchants' Association of New York, who are probably the first to take steps in the United States urging for an investigation of the express companies, have pointed out to Congress that the express companies are necessary because the parcel post omits the following essentials of a complete service:

1. It does not collect parcels;
2. It does not give receipts;
3. It does not provide indemnity for loss, except upon extra payment;
4. It does not provide any indemnity for damage;
5. It does not provide controlling records, by reason of which omission the volume of loss is increased;
6. It does not provide special means of security for valuable parcels;
7. It does not provide adequate protection against damage.
8. It does not provide for the transportation of a wide range of special commodities.

It will thus be seen that the express companies are a necessity and must remain in the field of transportation.

The parcel post service in Canada has opened up an entirely new line of transportation, or, in other words, it is an extension of the present system to every nook and corner of the Dominion, and places the small villager and farmer in the same position as the urban citizen in so far as the service of carriage is rendered. In this connection an analysis of postal and express statistics is interesting. There are in Canada, according to the Canadian Almanac, 14,475 post offices, of which 4,786 are on railway lines. There are on the various lines of railways about 5,500 express points, at about 50 per cent. of which agents are located. In sending parcels to the other 50 per cent. the charges must be prepaid. It will thus be seen that 9,100 distributing points have been opened up to the public by the establishment of parcel post.

When this is taken into consideration along with the extension of the weight limit to eleven pounds, the value of the service to the outlying districts will be appreciated, especially as it will affect the newer parts of Canada where post offices have been established far distant from railway lines.

As regards the question of pick-up and delivery service, there are 373 places in Canada where the express companies give free delivery. The area is restricted, however, at 84 of these places, so that an extra charge is made for delivery outside the limits approved by the Board of Railway Commissioners. Parcel post service provides free delivery service within all centres and where rural mail delivery has been established.

For the past five years the Canadian Manufacturers' Association has constantly urged the establishment of the system which has just gone into effect. The necessity of this addition to transportation services has been made the subject of recommendations at annual meetings and committee meetings and, throughout the entire period, has occupied the attention and received the support of Canadian manufacturers.

Freight Classifications.

The freight classifications issued by the railways or their associations describe in detail substantially every form and character of package of merchandise transported, and for each such package there is indicated either by assignment to a particular class or otherwise, the rate which will govern shipments thereof. Goods of a bulky nature, or of considerable value, or likely to be damaged are so classified that they take the higher rates. Briefly, the classification determines the rate to be paid.

Every manufacturer and shipper should have copies of the freight classifications in his possession. There are three outstanding reasons therefor,—

1. To enable him to properly describe for transportation purposes his goods;
2. To check the freight charges demanded at destination;
3. The law. The Railway Act says:—

"Any company or any officer or agent thereof, or any person acting for or employed by such company, who, by means of false billing, false classification, false report of weight, or by any other device or means, knowingly, wilfully or willingly suffers or permits any person or persons to obtain transportation for goods at less than the required tolls then authorized and in force on the railway of the company, shall for each offence be liable to a penalty not exceeding one thousand dollars and not less than one hundred dollars.

"Any person, or any officer or agent of any incorporated company, who shall deliver goods for transportation to such company, or for whom as consignor or consignee the company shall transport goods, who knowingly or wilfully, by false billing, false classification, false weighing, false representation of the contents of the package, or false report of weight, or by any other device or means, whether with or without the consent or connivance of the company, its agent or agents, obtains transportation for such goods at less than the regular tolls then authorized and in force on the railway shall, for each offence, be liable to a penalty not exceeding one thousand dollars and not less than one hundred dollars.

"The Board may make regulations providing that any such person or company shall, in addition to the regular toll, be liable to pay to the company a further toll not exceeding fifty per cent. of the regular charge.

"The company may, and when ordered by the Board shall, open and examine any package, box, case or ship-

(*Continued on page* 1160.)

INSVRANCE

By WILLIS FABER & CO.

A PERUSAL of the weekly fire record published in the *Monetary Times* brings to light the interesting fact that for over fifty per cent. of the fires which occur throughout Canada no cause is ever discovered. It would seem reasonable to suppose that, if these "unknown causes" could be traced, the first step would have been taken toward their elimination. The sooner an energetic Fire Marshal is appointed in Ontario, the sooner shall we begin to save some of the money now debited to the account of fire waste, and so much sooner will the high insurance rates current in this country begin to climb down.

At the annual convention of the Mutual Fire Underwriters' Association of Ontario, recently held in Toronto, some interesting conclusions were arrived at with regard to the value of lightning rods. It was stated that fully half the fires occurring on farms were caused through improperly protected buildings being struck by lightning, and that this resulted from lack of lightning rods. One speaker predicted that the time would soon come when there would be two classes or risks in mutual insurance: rodded buildings and those without rods. The universal adoption of lightning rods for protection of farm buildings was strongly advocated. It is rather remarkable to note, however, that, although some companies in the United States do insure at a considerably reduced rate farm buildings adequately protected by lightning rods, no such distinction appears as yet to have been made in this country.

Two important additions have recently been made to the list of fire insurance companies doing business in Canada. These are The Glens Falls Insurance Company, of Glens Falls, N.Y., and the Nationale Fire Insurance Company, of Paris, France. The former is a tariff company of very considerable strength and bears an excellent reputation. It has probably paid higher dividends to shareholders than any fire insurance company in existence. The "Nationale" is a decided acquisition to the list of companies operating independently of the Canadian Fire Underwriters' Association. We would welcome the entrance into Canada of several more non-tariff companies of equal strength.

During the past ten years one hundred and fifty-five fire insurance companies in Canada and the United States have been unable to bear the strain on losses and have retired from the field, principally by re-insuring their liabilities with other companies. Nearly one-half of these were less than five years old at the time of their retirement. Since January 1st, 1913, thirty-nine companies have been removed from the list, and on January 1st, 1914, there were seventy-two joint-stock companies and seventy-four mutual companies in the hands of the receiver or in process of winding up.

Some of the insurance legislation recently enacted in the Western Provinces savors more strongly of tyranny than of benevolent protection. The Alberta Insurance Act provides that any person, firm or corporation procuring any insurance against fire on any property, real or personal, in Alberta, in any company not licensed under the Act, shall, within one month from the effecting of such insurance, pay to the Treasurer a sum equal to *fifty per cent.* of the premium paid or payable, or premium note or mutual liability assumed in connection with such insurance. This very effectually prohibits western firms from exercising their own judgment in the choice of a market in which to purchase their insurance. Fire insurance has now become such an integral part of every commercial enterprise that the facility of being able to purchase such insurance at the lowest price compatible with sound security exercises an appreciable influence on the expense account. The usual excuse put forward for such legislation as this is that insurance buyers must be protected against the danger of insuring with "wildcat" companies which are liable to be unable or unwilling to meet their obligations in the event of loss. But does it actually afford that protection? The recent experience of the "Union Life" has proved that a company may be operating under full sanction of Canadian legislature, while at the same time the state of its finances may be in a wholly improper condition. The financial responsibility of an insurance company must not be judged from the way in which it may meet ordinary calculable fire losses, but from the position in which it would be placed in the event of a disaster. We have no hesitation in saying that there are to-day companies, fully licensed to do business in the various provinces, which would be quite unable to meet their obligations should a serious conflagration occur. On the other hand, there are external corporations which could meet their liabilities under any conceivable circumstances and which have earned a reputation for meting out fair and even liberal treatment to their policy holders. A property owner in Alberta is debarred from dealing with such corporations, even though he may now be paying a much-higher rate than conditions warrant. He is allowed no appeal to competition, but is left at the mercy of what may be to all intents and purposes a combine to maintain high rates. With statistics which he is able to obtain, the assured is in a perfectly good position to decide what policies will afford him adequate security, and he should be allowed the privilege of using his own discretion and placing his orders in the market which will best serve his purposes.

We do not for a moment claim that unlicensed companies should be acquitted of their fair share of taxation and thus given an advantage over companies registered or licensed in Canada. In most provinces a reasonable tax is levied on premiums paid for unregistered insurance, and this tax is usually borne by the broker placing the insurance. A tax of fifty per cent. however, would point either to remarkable influence which insurance companies have been able to exert or to excessive apathy on the part of the insuring public.

Legislation to provide a fire marshal for the Province has been introduced into the Ontario Legislature by the Attorney-General. At the opening of the session the Bill arranging for appointment was granted a first reading, and the House in Committee of Supply passed a resolution to provide a fund for the cost of administration. The measure was explained as designed to prevent fires and to minimize the annual losses.

TARIFF

By J. R. K. BRISTOL

Board of Customs Decisions.

Street railway car bodies without wheels or axles or without motors declared to be dutiable under Item 593, in effect 1st October, 1913. Under this item the duty payable under British Preferential Tariff is 20% and under General Tariff 30% ad valorem.

Declared that iron or steel rods, rolled or drawn, not less than 5-16 inches in diameter, for the manufacture of chain, shall not be admitted to free entry under Item 720 when further manufactured by being pickled or limed.

Vacuum cleaners with hose and adjustments declared to be dutiable under Tariff Item 519, in effect from February 1st, 1914. Under Item 519 the duty payable under the British Preferential Tariff is 20% and under the General Tariff 30% ad valorem.

"Chromol," a stuffing used in making chrome leather compounded of oleic and palmitic acid, per sample, declared to be dutiable under Tariff Item 711. Under this item the duty payable under the British Preferential Tariff is 15% and under the General Tariff 17½% ad valorem.

Arterial tubes of metal adapted for embalmers' use declared to be free of duty under Tariff Item 466.

Veneer flooring of oak dressed on one side with squared edges ready for laying, declared dutiable under Tariff Items 505 and 506. Under these items the General Tariff rate is 25% ad valorem.

Departmental Rulings.

Steel derricks, 80 feet high and 20 feet square at base for rotary deep well drilling which were claimed to be exempt from duty under Item 469, were ruled to be dutiable as belonging to a class or kind made in Canada.

Cork board, compressed or granulated, mixed with tar, declared to be dutiable under Tariff Item 494. Item 494 applies to manufactures of cork wood or cork bark, not otherwise provided for. Under this item the duty payable is 15% British Preferential and 20% General Tariff.

Sheet wadding, per samples, made from wood pulp fibre, such as is frequently used for padding confectionery boxes, declared to be dutiable under Tariff Item 520.

Leather cut to shape for carriage trimmings, declared to be dutiable under Item 613 as being manufactures of leather not otherwise provided for—15% British Preferential and 25% General Tariff.

Hectograph clay in bulk representing probably China clay with glycerine, Item 711. Under this item the duty payable is 15% British Preferential and 17½% General Tariff.

Electric heading pads, Item 453, 27½% General Tariff.

Tunny fish in oil in tins over 36 ounces each, Item 121. Under this item the duty payable is 20% British Preferential and 35% General Tariff.

Paintings in oil or water color or pastels, free under Tariff Item 695A whether framed or not—the frame being regarded as of insignificant value relatively when the paintings, water colors, or pastels are valued at not less than $20 each.

Tariff Item 403A provides for free entry of "wire rope for use exclusively for rigging of ships and vessels—under regulations by the Minister of Customs." Wire rope for use as follows is held to be dutiable and is not classed as rigging, viz.:—

Wire rope lines to be used as cables.

Wire rope lines for use as tow lines.

(*Continued on page* 1162a.)

FOREIGN TRADE IN CANADA.

	Month of February.			Eleven Months ending February.			Twelve Months ending February.		
Imports for Consumption.	1912. $	1913. $	1914. $	1912. $	1913. $	1914. $	1912 $	1913. $	1914. $
Dutiable goods	28,587,777	35,111,113	25,519,846	296,682,805	395,887,330	375,193,589	329,166,514	434,408,977	420,324,267
Free goods	13,593,591	17,840,696	13,030,199	166,612,811	206,508,883	190,034,181	183,606,157	226,040,321	212,007,479
Total imports (Mdse.)	42,181,368	52,951,809	38,550,045	463,295,616	602,396,213	565,227,770	512,772,671	660,449,298	632,831,746
Coin and bullion	412,377	319,203	406,726	24,168,256	5,127,619	13,826,180	24,509,592	7,003,244	14,126,540
Total Imports ..	42,593,745	53,271,012	38,956,771	487,453,872	607,523,832	579,053,950	537,282,263	667,452,542	646,958,286
Duty collected	7,460,661	9,152,220	6,822,925	77,453,487	103,126,845	97,806,874	86,049,865	113,221,894	109,719,189
Exports.									
Canadian Produce—									
The mine	3,0001,012	4,459,162	4,046,146	35,672,526	51,224,538	52,469,690	40,346,613	56,876,528	58,687,698
The fisheries	1,213,672	1,817,746	1,370,492	15,362,889	14,948,420	19,153,286	16,301,170	16,290,209	20,541,587
The forest	1,960,404	2,212,485	1,961,206	38,662,592	40,895,709	40,097,151	41,339,637	43,125,791	42,456,502
Animal produce ..	2,030,902	2,861,408	3,427,188	45,873,181	42,004,398	50,147,059	48,994,520	44,341,871	52,927,254
Agr'l. products ...	7,438,814	7,545,143	5,058,785	97,622,117	133,017,132	191,707,483	103,129,619	142,538,390	208,836,012
Manufactures	3,170,046	3,950,830	4,674,709	31,950,357	38,699,013	51,204,162	35,386,441	42,584,940	56,197,857
Miscellaneous	5,835	10,393	14,561	99,426	90,638	108,617	109,342	102,888	115,290
Total Canadian Produce	18,820,685	22,857,167	20,553,087	265,243,088	320,879,848	404,887,448	285,607,342	345,860,617	439,762,200
Foreign produce	741,168	913,594	649,396	16,491,117	20,236,705	22,787,282	17,413,184	21,237,882	23,864,332
Total exports (Mdse.)	19,561,853	23,770,761	21,202,483	281,734,205	341,116,553	427,674,730	303,020,526	367,098,499	463,626,532
Coin and bullion	2,299,301	1,139,079	859,887	6,446,624	13,871,588	12,956,374	7,069,949	15,006,063	15,248,488
Total exports ...	21,861,154	24,909,840	22,062,370	288,200,829	354,988,141	440,631,104	310,090,475	382,104,562	478,875,020
Aggregate Trade.									
Merchandise	61,743,221	76,722,570	59,752,528	745,029,821	943,512,761	992,902,500	815,793,197	1,027,547,797	1,096,458,278
Coin and bullion	2,711,678	1,458,282	1,266,613	36,624,880	18,999,207	26,782,554	31,579,541	22,009,307	29,375,028
Total Trade	64,454,899	78,180,852	61,019,141	775,654,701	962,511,973	1,019,685,054	847,372,738	1,049,557,104	1,125,833,306

LEGISLATION IN QUEBEC

BY H. T. MELDRUM

THE session of the Quebec Legislature which closed at the end of February was productive of considerable legislation affecting the industrial interests of the Province—some of it directly and a great deal indirectly. Of the latter should be noted, Government measures dealing with the inspection of hotels, the regulation of labor bureaus, the encouragement of technical education, and assistance in the construction of workingmen's dwelling-houses.

In the following lines I shall deal briefly with the various questions which arose. Each bill as introduced was carefully examined and steps taken to safeguard the best interests of the manufacturers before the last stage of legislation was reached.

One of the most important matters with which we had to deal was that of the revision of the Municipal Code. The report of the Commission to the Legislature proposed to allow the taxation of factory machinery by municipalities. The Legislature delegated examination of the report to a special committee, and representations were made to this committee that land and buildings only should be assessed for purposes of taxation. The proposal was very favorably received by the committee, but before a final decision was arrived at the matter was adjourned until next session.

Bulk Sales Act.

Representations were made to the Government to the effect that the Act did not give the manufacturer and the wholesaler the protection from fraudulent sale on the part of a retail dealer which was required. It had been found by practice that under the existing law a creditor could only claim under the Act for the exact amount of goods procured from him which remained on the shelves of the retailer at the time of the bulk sale. The law was therefore amended at the recent session to provide that in making a sale *en bloc* the vendor should furnish the purchaser with a full list of his creditors, and it should be the duty of the purchaser to require such a list and see that the creditors were satisfied. In other words, all the creditors may claim equally for the full amount of their claims under the Bulk Sales Act.

Election of Domicile.

For the fourth time a bill to prohibit the election of domicile in deeds, contracts, etc., for purposes of suit, was introduced, and after the original bill had been amended at practically every stage in procedure, furnishing a legislative battle such as is rarely seen even in the Quebec House, the existing law was amended by the addition of the following paragraph to Article 85 of the Civil Code:

> "Except in the case of a notarial deed, an election of domicile shall be without effect as regards the jurisdiction of any court when it is signed by a non-trader within the boundaries of the district in which he resides."

In practical effect, therefore, the new law will apply rather seriously to manufacturers selling directly to the consumer. The change comes into effect on July 1st, 1914, which will allow the manufacturers time to change their contract forms.

Workmen's Compensation Act.

A provision was included in the Act to make it clear that persons not coming within the scope of the Act should have their full rights of action under the common law. A proposal to include lumbering employees under the Act was opposed and rejected.

Taxation for School Purposes.

A bill to include in the school assessment roll, machinery immovable by destination, as well as land and buildings, was finally amended to provide simply that the school roll in a municipality should conform to the municipal roll in that municipality, and it was passed in that form.

Among the more general legislative measures, I should mention:—

Employment Bureaus.—It is now provided that employment bureaus must receive a permit from the Minister of Public Works and Labor—must keep a complete register, and must make a monthly return to the Department. In cities where there are free Government Labor Bureaus, privately operated bureaus will be required to pay a license fee of $200 and in other places a license fee of $25.

Technical Education.—A bill was passed to encourage the establishment of technical schools and vocational courses by private or public corporations, and to provide for the appointment of an Inspector-General for technical education.

Inspection of Hotels.—In view of many complaints from commercial travellers of the condition of hotels in the rural districts of Quebec, the Government put through a measure providing for periodic inspection of hotels and boarding-houses.

Workingmen's Dwellings.—Under the title of "An Act to assist in the construction of dwelling-houses in cities, towns and villages," it is provided that a company may be formed for the purpose of building dwellings for workingmen, and may have its undertakings guaranteed by the municipality as to principal and interest, provided it be shown that additional dwelling-houses are required to house properly the people who live or work in the municipality. Proper regulations are framed to ensure that the company operate in the public interest. Dividends are restricted to 6 per cent. upon the amounts actually paid in.

Good Roads.—The Act of two years ago, providing for the encouragement of road building by the guarantee of bonds, jointly by the Province and by the municipality through which such road passes, is now further extended by the establishment of a separate Department of the Government under the charge of a Minister of the Government who shall be styled "The Minister of Roads." Other extensions to the Act were also made to give this part of the public service a more prominent place in the Provincial administration.

Water Power Supply.—A bill was passed which would allow pulp and paper companies to expropriate a right of way and to procure such supply of water as might be required. This was not a Government measure.

License Law.—The amendments of the session provided for an increase in the cost of wholesale and retail liquor license for the different cities and towns of the Province, and restricted the number of licenses which might be granted.

MANITOBA LEGISLATION

BY G. F. C. POUSSETTE

The fourth session of the thirteenth legislature of the Province of Manitoba drew to a close on Friday afternoon, 21st February, having lasted nearly ten weeks. During the course of the session a larger volume of legislation was enacted than in any previous session of the Provincial governing body. No less than 169 bills were assented to by the Lieutenant-Governor, and quite a number of these are of interest to the manufacturing industries of the Province.

One of the measures significantly spoken of in the Speech from the Throne was the "Act respecting the Construction and Improvement of Rural Public Highways and Roads," or what is generally referred to as "The Good Roads Act." In this Act the Government proposes to spend some $2,500,000 to aid in the construction of good roads throughout the Province. The bill is a lengthy one, and provides for the appointment of a board of three members; issuing of debentures and levying rates, and the Government guarantee of the first-named, under certain conditions. Other clauses provide penalties in case a Council neglects to levy rates, provision is made for the maintenance of works, and it is specified that all works shall be let by contract. The bill is generally looked upon with favor, and it is felt that far-reaching and beneficial effects will ensue from the carrying out of its provisions.

The Act to "Encourage Housing Accommodation in Cities and Towns" is assuredly a step in the right direction and has come at a time when improvements along the lines proposed in the Act are urgently needed. The Act is drafted along the lines of similar legislation in Ontario, where the scheme has worked out with such success as to place it beyond the experimental stage. The bill is simple in its provisions, and if put into effective operation, there can be no doubt of the improvement of conditions affecting large numbers of the artisan and working classes.

An Act of considerable importance to the packing and live-stock industries of the Province is that respecting a "Public Abattoir and Cold Storage Plant." The Provincial Government expended during 1912-13 very large sums of money in the erection and equipment of stock yards in St. Boniface, and this plant was taken over by a corporation known as "The Public Markets Limited." By recent legislation the powers of the company have been extended to enable them to build and operate a Public Abattoir and Cold Storage Plant, for which purpose they may borrow not to exceed $500,000 by the issue of bonds or other debentures guaranteed by the Province of Manitoba. The passing of "The Public Abattoir Act" provides that as soon as a cold storage plant shall have been completed and notice thereof published, after the expiration of two months from the publication of such notice, all public slaughtering within the cities of Winnipeg and St. Boniface, except at such public abattoir, shall be prohibited, and any person or company contravening the provisions of this section of the Act shall be liable to a fine of not more than $50.00 and not less than $10.00, besides costs of prosecution, and, in default of payment, imprisonment not exceeding one month.

It is believed that this legislation was brought about on account of the fact that since the public abattoir and stock-yards was completed about a year ago, it has not been receiving that support of the live-stock-men and packers that it was originally hoped would be accorded. The plants of the latter have been located in various parts of the city, and this recent legislation is aimed to bring them within the radius of the new stock yards.

An Act respecting certain fees payable by incorporated companies provides that all companies heretofore incorporated under the authority of a private Act of the Legislature, any provision in the said Act to the contrary notwithstanding, shall, when increasing their capital stock, pay such additional fees, charged upon the amount of such increase only, as are provided for in the rules of the Legislative Assembly.

TRANSPORTATION

(*Continued from page* 1156.)

ment, for the purpose of ascertaining whether this section has been violated."

The Board of Railway Commissioners has, in accordance with the powers vested in it, made the following order:—

"It is ordered:—

"That any person or company violating the provisions of section 400, sub-section 1, of the Railway Act, shall, in addition to the regular toll, be liable to pay to the company a further toll not exceeding fifty per centum of the regular charge."

Whilst it is not believed that the law is being violated to any great extent in Canada, the railways have found it necessary to, at times, impose the penalty authorized by the Board. This is only done, however, after the attention of the party at fault has been called to the transgression.

In the United States the Department of Justice has found it necessary to make investigations of violations of the law which prohibits the mis-description of property and a number of prosecutions has followed. Fines of from $200 to $500 have been imposed.

In passing judgment recently in two cases Judge Hunt of the United States Supreme Court had the following to say:—

"I have been interested in reading of the contention of the railroads that they be permitted to raise their rates on freight because of the heavy demands for equipment, extension of systems and the increase of wages to workmen. In reading this I was reminded that the shipper must pay the rate charged for on the tariff. If the shipper does not pay the rate it is an element which in the aggregate amounts to an enormous sum which is not paid and ought to be paid.

"This is one of the phases of the economic movement which has resulted in the railroads becoming honest. The situation is turning about so that the man who deals with the railroads must also be honest. It is incumbent upon the business men to study the classification of rates in which their goods fall and to conform to it. In this campaign which the Government is making those who are brought within the toils of the law at first may not suffer so severely as those who will come later, but this will teach them a lesson.

"In this peaceful revolution which is going on in business affairs the merchant as well as the corporation with which he deals must be absolutely fair and square. The higher demands of citizenship make for the ostracization of the merchant who does not obey the law. Go back to your business and think about this."

It will be seen that there is a legal obligation upon every shipper to describe properly and fully his goods on the bill of lading at the time of shipment. It is to his material advantage to do so in order to secure better despatch and to avoid overcharges. Insufficient description causes inspection by the inspectors of the Canadian Freight Association who are stationed at the principal shipping points and constantly visiting smaller stations. This inspection means delays and other annoyances to both shippers and consignees.

ST. JOHN'S AMBULANCE CORPS' WORK IN LARGE FACTORIES

BY R. W. HEAFIELD

AT present, when Canada is looking forward to the enactment of Parliamentary Workmen's Compensation measures, it will not be out of place to set forth the advantages of establishing St. John's Ambulance Corps in all establishments employing labor to any extent.

It will be readily admitted that proper attention rendered to the injured immediately after accidents by someone having the necessary training and materials must always relieve the patient treated of a great amount of suffering, and be of assistance to the doctor when he arrives on the scene. This treatment has saved many persons from blood poisoning, permanent disability and death. Prompt attention to the injured shortens the period of enforced idleness (during which the employer is paying out money for which he receives no return), and in the case of many companies in countries where Compensation Acts are in force, such as England and Germany, has resulted in great financial benefit even in so short a period as twelve months.

The writer was for some time a member of an English corps in one of the largest engineering companies in that country.

Planning a System.

Below will be found general rules, which, though they are not, perhaps, capable of being applied to every establishment, will be found to be applicable to some, and may form the basis for the framing of rules in many others:

1. The Managing Committee shall consist of the General Manager of the works with heads of other departments and the captain of the corps.

2. The committee shall have full control of the corps and its property.

3. The secretary shall keep a list of names and addresses of the members of the corps.

4. The object of the corps shall be to render first aid in cases of accident or sickness to workmen employed by the company until the arrival of a medical practitioner, or before the removal of the patient to the hospital; to encourage and demonstrate ambulance work; also to afford opportunities of meeting together for practical work and to render assistance on any public occasion if required.

5. There shall be one, two, or more (according to size) centres at which a fully-equipped first aid set will be fixed; also a portable hamper shall be kept in the stores department for use in any remote part of the works.

The location of these sets should be set forth in such form as to preclude any misunderstanding on the part of members.

6. Only members of the ambulance corps will be allowed to render first aid to any injured workman. Members are distinguished by wearing St. John's Ambulance badges.

7. There shall be enough stretchers kept. (One stretcher for every two shops will be found sufficient.) The undercarriage, body cover and blankets should be kept at the gate-house.

8. The corps shall consist of men drawn as far as possible from each department or shop. A captain should be elected annually. In the case of large establishments it is desirable that two captains be elected and that the corps be divided into two distinct groups.

9. There shall be two practices a month, at which members attending shall be paid not less than twenty-five cents each by the company.

10. The committee shall have power to expel any member for misconduct or for misuse of ambulance property.

11. The rules shall be subject to alteration or amendment at the discretion of the committee at any special meeting called for that purpose.



St. John's Ambulance Corps Workers, McClary Manufacturing Co., London

The following rules should be observed by foremen in case of accident:

1. The shop foreman should see that the shop ambulance man is notified, or, in his absence, the nearest member of the ambulance corps.

2. Take such immediate steps as are necessary to liberate the patient.

3. Preserve order and discipline in the shop and prevent unnecessary crowding or any interference with the patient or ambulance men in charge.

4. At the request of the ambulance man in charge, see that any additional assistance is promptly supplied or appliances obtained.

5. At the request of any member of the ambulance corps, despatch a messenger to advise the gate-keeper to have undercarriage, blankets, etc., in readiness.

6. If requested by the ambulance man, advise the works

* EDITOR'S NOTE.—The work of the St. John's Ambulance Association is already familiar to Canadian manufacturers, some of whom have established branches in their factories. The Association gives instruction in first aid in accidents, the elementary principles of nursing, hygiene and sanitation, the manufacture of ambulance material, the organization of ambulance corps and the general relief of the sick and suffering. The writer of this article, having been a member of a corps in England, is qualified to describe the system and to suggest a set of rules for its use in factories.

directors or works superintendent by telephone that cabs, town ambulance or medical aid is required.

7. For all accidents treated in the shops, the foreman will receive an ambulance report, countersigned by the ambulance captain; this must be initialed and passed on to the secretary of the ambulance corps.

(Note.—Nothing in these instructions is to be held to interfere with current procedure for notifying works directors or the general manager of all accidents.)

Details for Corps.

Members of the ambulance corps should be guided by these directions:

1. In cases of minor accidents, cuts or burns, the shop ambulance man should take sole charge of the case and do what is necessary for the patient.

2. In severe cases, such as crushed limbs, hemorrhage, broken legs or arms, the shop ambulance man should take such steps in first aid as the case demands, until the arrival of the ambulance captain, who will assume direct charge of the case.

3. All cases attended must be duly entered on one of the forms provided for the purpose, which will be countersigned by the ambulance captain and passed to the shop foreman.

Ambulance Captain.

The duties of the ambulance captain are important, and place upon his shoulders heavy responsibilities.

1. In minor cases the ambulance captain is to countersign the ambulance report form; in so doing to satisfy himself with the treatment of the case.

2. In severe cases of accident the captain should assume full responsibility for the case, and should determine if the case can be satisfactorily treated with the resources at command. If outside assistance or medical aid is necessary, he is to notify the shop foreman, who will give the necessary instructions as detailed above.

3. Should it be necessary to send a patient to the hospital, the ambulance captain is to decide on the means of conveyance and to see that the patient is properly protected for the journey, and that the hospital authorities are notified by telephone to be in readiness to receive the case. He is also to accompany the patient to the hospital and to render any assistance to the authorities if requested to do so.

4. In cases of minor accident, requiring that the patient should leave the works for his home, and not necessitating a conveyance, the ambulance captain should see that necessary assistance is given to the patient.

5. In all cases of a man leaving the works as the result of an accident, the ambulance captain must see that the shop foreman is advised of the fact.

Duties of the Gatekeeper.

1. The gatekeeper is responsible for the under-carriage, body cover, pillows and blankets, and should see that these are kept clean, dry, aired, and ready for immediate use. On receipt of a call for the ambulance carriage he is to see that it is taken from the shed, equipped with all accessories, ready to receive the stretcher.

General Manager's Duty.

1. The works director or general manager, on receipt of a telephone call from the shops reporting an accident requiring outside assistance, should make the necessary arrangements for dealing with the emergency, and should obtain conveyances or medical aid with the greatest despatch possible.

The telephone operator should understand that ambulance calls are to receive priority over all ordinary works calls.

How to Establish a Corps.

To start an efficient corps, working on these lines in a shop employing from fifty to one hundred men, one stretcher party of five men would be required. It is advisable that for larger concerns a stretcher party for five hundred men employed would be sufficient to deal with all cases. Consequently a firm employing three thousand men would require an ambulance corps of thirty men. These would receive instruction twice weekly at the rate of twenty-five cents each per practice.

It is advisable that the person organizing a corps should arrange for a room for practices in the town, independent of the works. When this is done other members join, besides those employed in the shops, and often an efficient town ambulance corps is formed. All public committees and societies gladly give admission free to qualified ambulance men, whose services are rendered free when required.

The expense of establishing a corps in any establishment is comparatively small, and is a move that is justified by the results attained, not only in relief to the patient, but by a great saving in compensation.



Hospital Room in McClary Manufacturing Co.'s Plant, London.

TWO MORE STEAMSHIP BERTHS.

The Maritime Dredging and Construction Company announce that they will have two additional steamship berths completed at West St. John by the first of next December. Their work involves an immense amount of timber and concrete construction, but the timber will be established at an early date, so that hundreds of men can be employed in the spring and the work rushed to completion.

TARIFF

(Continued from page 1158.)

Wire rope lines to be used for moving the vessel or for holding the vessel in position.

Staude guling, folding and counting machine used in making paper cartons, 10% ad valorem, Item 442.

Cementing compound per sample, representing solid asphaltum, free, Item 584.

Fabric representing plain white bobbinet in the web, whether fine or coarse mesh, Item 574. By this item the duty payable under the British Preferential Tariff is 15% and under the General Tariff 25% ad valorem.

Transparent window signs, 15c. per pound, Item 178.

Steel pipe balls, so-called, used in making lap welded steel pipe, 27½% ad valorem, Item 453.

Buckramette, so-called, per sample, for the manufacture of hat and bonnet shapes, free under Item 638.

"Kromoid" and "Okoid," per sample, for use in making leather, dutiable under Item 224 at 25% General Tariff. This duty, however, is subject to drawback of 99% under the provisions of Tariff Item 1016 when used in the manufacture of leather.

DEATH OF D. K. McLAREN.

Mr. D. K. McLaren, president of D. K. McLaren, Limited, died in Montreal on March 18th. The deceased was seventy-nine years of age. His death removes one of the most widely and favorably known manufacturers of Canada.

NEW MANUFACTURING COMPANIES.

The following companies have been incorporated for manufacturing purposes.

	Capital.
The Lion Silverware Co., Ltd., Galt, Ont.	$40,000
The Eureka Rubber & Tire Co., Ltd., Toronto, Ont.	40,000
J. H. Winters & Co., Ltd., Toronto, Ont.	200,000
Kemp Bindery, Ltd., Toronto, Ont.	40,000
The Dominion Mausoleum Co., Ltd., Brantford, Ont.	40,000
The J. & G. Garment Mfg. Co., Ltd., Toronto, Ont.	40,000
Canadian Union Metal, Ltd., Galt, Ont.	40,000
Drayton Mills, Ltd., Toronto, Ont.	50,000
Refractory Ore Converters, Ltd., Hamilton, Ont.	150,000
Moyer-Lovelace Co., Ltd., St. Catharines, Ont.	40,000
Weir & Co., Ltd., Ottawa, Ont.	100,000
The Glendyne Slate & Roofing Co., Ltd., Richmond, Que.	100,000
Metallic Tire Expander, Ltd., Montreal, Que.	250,000
Pulp & Lumber, Ltd., Montreal, Que.	100,000
The Canada Pole & Shaft Co., Ltd., St. Catharines, Ont.	400,000
Baker, Smith & Co., Toronto, Ont.	40,000
The Standard Smelting & Refining Co., Ltd. North Bay, Ont.	150,000
The Canadian Peat Co., Ltd., Toronto, Ont.	250,000
The Huntsville Woollen Mills Co., Ltd., Huntsville, Ont	40,000
DeMar Novelty Co., Ltd., Fort Erie, Ont.	10,000
Royal Metals Separator Co., Ltd., Kenora, Ont.	100,000
Standard Unrefillable Bottle Co., Ltd., Winnipeg, Man.	40,000
McClellan-Stooker Co., Ltd., Winnipeg, Man.	100,000
Bettschen-Higgins Co., Ltd., Vancouver, B.C.	50,000
Canadian Wood Distilling Co., Ltd., Cranbrook, B.C.	100,000
Feix Co., Ltd., Vancouver, B.C.	10,000
Fess System Co. of Canada, Ltd., Vancouver, B.C.	50,000
Lake Shore Sand & Gravel Co., Ltd., Toronto, Ont.	250,000
Canada Casket Co., Ltd., Wiarton, Ont.	300,000
Hope Mfg. Co., Ltd., Toronto, Ont.	40,000
Whyte Foundry Co., Ltd., Toronto, Ont.	40,000
The Furbisheneing Co., Ltd., Winnipeg, Man.	40,000
Quicklean Mfg. Co., Ltd., Redcliffe, Alta.	50,000
Interprovincial Brick Co. of Canada, Ltd., Montreal, Que.	500,000
Lyons Shoes, Ltd., Montreal, Que.	50,000
Standard Pulp & Lumber Co., Ltd., Montreal, Que.	1,000,000
Eastern Publishers, Ltd., Sackville, N.B.	50,000
Moosehorn Lime Co., Ltd., Winnipeg, Man.	200,000
The Lake of the Woods Boat Co., Ltd., Winnipeg, Man.	80,000
Williams Shoe, Ltd., Brampton, Ont.	200,000
Canadian Fertilizer Co., Ltd., Chatham, Ont.	40,000
Kingston Iron & Tube Co., Kingston, Ont.	1,000,000
Canadian Metal Products, Ltd., Guelph, Ont.	100,000

DEATH OF HON. WM. PATERSON.

Hon. William Paterson, Ex-Minister of Customs, died in Picton, Ont., on Mar. 18th.

He was born at Hamilton in 1839, and was left an orphan at the age of ten years when his parents died from cholera. After being adopted by the late Rev. Dr. Ferrier he was taken to Caledonia, where he finished his education. He formed a partnership at Brantford and went into the manufacturing of biscuits in 1863. Thirteen years later he became sole owner of the business. In 1872 he defeated Sir Francis Hincks as a candidate for the Commons, and sat for the Brant constituency till 1896, when he was defeated, but found a seat in North Grey. From 1900-4 he represented North Wentworth and Brant, and he sat for Brant in the period from 1904 to 1911.

When the Laurier Government was formed Mr. Paterson became Controller of Customs, and as such had much to do with framing the tariffs of 1897 and 1907. In 1897 he was sworn in as Minister of Customs, and frequently acted as Finance Minister in the absence of Mr. Fielding, with whom he acted in framing the reciprocity pact in 1911.

In 1902 he was one of the Canadian delegates to the Imperial conference in London; he was a member of the tariff commission of 1905; in 1909 he was appointed by King Edward to act on the Royal Commission to report on trade relations between Canada and the West Indies.

DEATH OF MR. L. H. PACKARD.

Mr. L. H. Packard, President of the L. H. Packard Company, Limited, passed away after a short illness at the General Hospital, Montreal, early in March.

The late Mr. Packard was in his seventy-fourth year, having been born in Stoughton, Mass., in 1840, the son of the late Lucius Packard. Having completed his education here, he engaged in business with his father, but just before the Civil War broke out he went south, where he took up the lumber business. After a few years in Boston, where he engaged in the shoe-finding business, he came to Montreal in 1874.

As a member of the Board of Trade of Montreal, and of the Canadian Manufacturers Association, the late L. H. Packard was well and favorably known in business.

5,000 FACTS ABOUT CANADA.

A novel and unique mine of information in found in the popular booklet, "5,000 Facts About Canada," just issued for 1914, and compiled by Frank Yeigh.

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of January, 1914.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload lots; L.C.L., less than carload lots.)

C.R.C.	R.R. No.	Effective.	Description.
Canadian Pacific Railway.			
Sup. 11 E 2713	Sup. 11 E 2330	Feb. 27-14	Commodities stations in Ontario to points in the Maritime Provinces.
Sup. 5 E 2715	Sup. 5 E 2332	Feb. 28-14	Grain and grain products between C. P. stations.
Sup. 18 E 2529	Sup. 18 E 2133	Mar. 31-14	Commodities stations on C.P. and connecting lines to points in U.S. Advance reduction.
Sup. 22 E 1593	Sup. 22 E 1180	Apr. 1-14	Paper C.L. stations in Canada to points in U.S. Advance.
Sup. 12 E 2570	Sup. 12 E 2178	Apr. 1-14	Commodities C. P. stations to points in U. S. Advance. Reissue.
Sup. 12 E 2713	Sup. 12 E 2330	Mar. 2-14	Commodities between points in Canada. Reduction. Reissue.
Sup. 8 E 1322	Sup. 8 E 904	Mar. 12-14	Iron commodities points in Ontario to stations on C.P.R. Reduction.
Sup. 47 E 2559	Sup. 47 E 2166	Various dates	Building material between stations in
Sup. 27 E 2342	Sup. 27 E 1942	Mch. 10-14	Commodities between C. P. stations. Reissue.
Sup. 13 E 2855	Sup. 13 C.Y. 31	Mch. 9-14	Montreal to Chaudiere Curve and Point Levi. 10c. per 100 lbs.
Sup. 13 E 2713	Sup. 13 E 2330	Various dates	Commodities between C. P. stations and to points in Maritime Provinces.
Sup. 10 E 2643	Sup. 10 E 2259	Mch. 19-14	Pig iron, c.l., Joliette to Montreal.
Sup. 10 E 1285	Sup. 10 E 867	Apr. 15-14	Iron commodities, Montreal Highlands, etc., to various points. Advance. Reduction. Cancellation summer rate to Ottawa and Hull.
Sup. 5 E 2646	Sup. 5 E 2262	Mch. 20-14	Switching and interswitching. Advance. Reduction.
E 1683 cancels E 723	E 2390 cancels E 781	Apr. 20-14	Class rates C.P. and G. P. & H. stations, to points in Western U. S. Advance. Reduction.
Sup. 15 E 2713	Sup. 15 E 2330	Apr. 21-14	Commodities between C. P. stations. Advance. Re-issue.
Grand Trunk Railway.			Canada. Advance.
Sup. 10 E 2655	Sup. 10 C.Y 31	Feb. 27-14	Mill cinder and scale C. L. Belleville to Galt, $1.50 per gross ton. Reduction.
Sup. 11 E 2855	Sup. 11 C.Y. 31	Feb. 27-14	Acid C.L., Hamilton to Prescott, Ont. Reduction.
Sup. 6 E 2361	Sup. 6 V. 20	Apr. 1-14	Class rates G.T. stations to points in New York.
Sup. 5 E 2758	Sup. 5 C.U. 75	Apr. 20-14	Buffalo, Black Rock and Suspension Bridge to points in Canada. Reduction.
Sup. 23 E 2374	Sup. 23 C.R. 111	Apr. 10-14	Reshipping. Stop-off and special arrangements. Reduction.
Sup. 11 E 1325	Sup. 11 C.S. 12	Apr. 15-14	Sugar, syrup and molasses. Montreal to Ottawa. 11c. per 100 lbs. Advance.
Sup. 10 E 1433	Sup. 10 C.I. 52	Apr. 15-14	Iron commodities. Montreal to Ottawa. Advance.
Sup. 16 E 2855	Sup. 16 C.Y. 31	Apr. 15-14	Iron commodities. Montreal to Fort William, Port Arthur and Westfort. Advance.
Sup. 14 E 2855	Sup. 14 C.Y. 31	Apr. 23-14	Commodities between G. T. stations and from and to connecting lines. Advance. Reduction.
Sup. 15 E 2855	Sup. 15 C.Y. 31	Apr. 15-14	Commodities between G. T. stations and from and to connecting lines. Re-issue. Advance.
Sup. 15 E 2457	Sup. 15 S 86	Apr. 15-14	Interswitching. Advance. Reduction.
Sup. 6 E 2709	Sup. 6 C.R. 145	Apr. 23-14	Weighing of C. L. freight. Advance.
Sup. 16 E 2684	Sup. 16 C.U. 72	Apr. 23-14	Commodities between G. T. stations. Re-issue. Reduction.
Canadian Northern Railway.			
W 762 cancels W 747	W 1395 cancels W 1374	Mch. 1-14	Port Arthur, Fort William to Winnipeg Branch and Portage la Prairie. Iron and steel bars, plates, beams, etc.
Pere Marquette Railroad.			
Sup. 6 1341	Sup. 6 3351	Feb. 28-14	Switching at P.M. stations in Canada.
Cincinnati, Hamilton & Dayton Railway.			
Sup. 10 276	Sup. 10 5603A	Apr. 1-14	Commodities from U.S. stations to points in Canada.
Sup. 11 278	Sup. 11 5280E	Apr. 1-14	Classes and commodities C.H. & D. stations to points in Canada.
Cleveland, Cincinnati, Chicago & St. Louis Railway.			
Sup. 51 144	Sup. 51 830A	Apr. 1-14	Class and commodity rates C.C.C & St. L. stations to points in Canada.
Michigan Central Railway.			
Sup. 7 2033	Sup. 7 9065C	Apr. 1-14	Class and commodity rates M.C. stations to points in Canada.
Michigan Central Railroad.			
Sup. 28 1751	Sup. 28 8764	Apr. 23-14	Commodities, Buffalo, Black Rock and Suspension Bridge to points in Canada.
Sup. 34 1351	Sup. 34 7766	Mch. 26-14	Iron and steel articles, London, Welland. Windsor. etc.. to points in Canada.
Lehigh and New England Railroad.			
138		Apr. 14-14	Pig iron, c.l., from Catasauqua, Pa., to Montreal, $3.50 per gross ton.

START HYDRO WITH EVEN A SINGLE MOTOR

SOME power users would like to use Hydro, but they very naturally dread the initial cost of a complete electrical installation, to say nothing of the interruption of their business.

Our answer to that is that it is not necessary to make the complete change from mechanical transmission to electric drive all at once. The whole plan of transformation can be made—we'll do that for you—and then only the most wasteful drives can be suspended by Hydro power.

The convenience and increased economy are sure to result in a speedy transformation of the rest of the equipment.

At any rate, you give yourself the chance of seeing whether Hydro can't keep in your bank many of those good, hard earned dollars now going up the chimney in smoke or being wasted on costly transmission.

Many of the large electric power installations of to-day had their beginning in the use of a single motor.

We investigate and report on your power problems fully and without charge. Write or phone us to-day.

Toronto Hydro-Electric System

226 YONGE PHONE ADELAIDE 2120



THE importance of the proper finish to the product of any plant using varnish cannot be over-emphasized.

Dougall Varnish

costs a little more than some other brands. It is worth a great deal more. We can demonstrate this so clearly that it is well worth your while to get into touch with us. If we can show you how varnish will make a perceptible addition to your margin of profit, isn't it worth investigating right now.

Write us to-day for an appointment with a man to go into this question with you in your own plant.

The Dougall Varnish Company, Limited

Montreal -:- Que.

Associated with
MURPHY VARNISH CO., U.S.A.

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

983. **Box Shooks.**—A London firm of over thirty years standing who specialize in box shooks, is desirous of getting into touch with Canadian sawmills who supply this commodity.

984. **Asbestos, Copper and Nickel.**—A Vienna company invites offers from Canadian producers of asbestos, copper and nickel, who are looking for a Continental outlet.

985. **Fruit Pulp and Evaporated Fruit.**—A London firm report a heavy demand for fruit pulp and evaporated fruit, and would like to hear immediately from Canadian packers.

986. **Timber.**—A Manchester firm desires quotations for spruce deals 3 x 6, 7, 8, 9 and up, and 10 feet and up in length, in lots of 50 standards per month.

987. **Felts, Roofing.**—A St. John's, Newfoundland, wholesale dealer asks for names of Canadian manufacturers of roofing felts.

988. **Shingle Machines.**—Canadian manufacturers of rotary and shingle machines are asked to correspond with a Newfoundland inquirer.

989. **Flour.**—A producer agent in Cape Town, now handling Australian produce, will take up agency for Canadian flour.

990. **Milk, Condensed.**—A Cape Town agent solicits correspondence from Canadian manufacturers of condensed milk, with a view to agency for South Africa.

991. **Motor Tractors.**—A Cape Town commission agent requests correspondence re taking up agency for motor tractors.

992. **Motor Cars.**—A Cape Town agent wishes to communicate with Canadian manufacturers and exporters of motor cars, with a view to agency.

993. **Motor Accessories.**—A Cape Town agent solicits correspondence with a view to agency for Canadian-made motor accessories.

994. **Paper Bags.**—A Rhodesian firm requests samples and quotations on Canadian-made bags.

995. **Paper, Wrapping.**—A South African importer asks for samples and prices on Canadian-made wrapping paper.

996. **Brushware.**—A South African importer makes inquiry for Canadian-made brushware. Catalogues and prices requested.

997. **Duck.**—Samples and prices are inquired for by a South African importing house.

998. **Paper, Wrapping.**—A South African importer asks for samples and prices of Canadian-made wrapping paper.

Fire Insurance Companies

acknowledge the efficiency and dependability of MANUFACTURERS' AUTOMATIC SPRINKLERS by reducing Rates about 80 Per Cent.



These sprinklers are firemen and watchmen that are always alert.

They quickly extinguish a blaze before it gets any headway.

They will pay for themselves in five years with the large saving they effect in premium rates.

Will be pleased to furnish you with estimates on equipping your old or new plant.

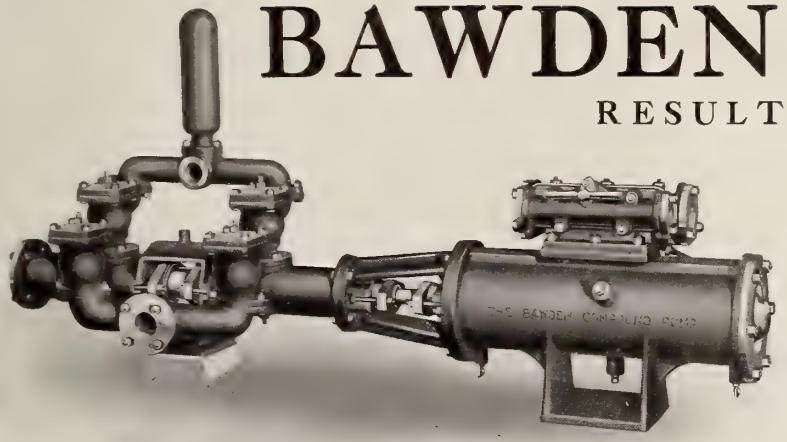
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Compound Outside Packed Pot-Valve Boiler Feed Pump

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5 in. Diameter High Pressure Steam Cylinder
9 in. Diameter Low Pressure Steam Cylinder
4 in. Diameter Water Ram
10 in. Stroke

In Parker's Dye Works, Toronto

Feeding High Pressure Boilers with Water 212°

Install a Bawden Pump which is Guaranteed to do your work with a steady flow and no noise

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ROBINSON & SEAGER, McDougall Ave., Edmonton, Alta.

ROCK & POWER MACHY. CO., LIMITED, TORONTO BRANCHES: KING EDWARD HOTEL, TORONTO, COBALT, PORCUPINE SUDBURY, WINNIPEG, VANCOUVER, MONTREAL, HALIFAX

Bawden Machine Co., Limited, 133 Sterling Rd. TORONTO, CANADA

COMPENSATION IN OHIO.

During the eighteen months the workmen's compensation law has been in effect in Ohio, 2,183 firms, with 134,191 employees, have been covered by state compensation. During that period receipts aggregated $602,347 and awards made amounted to $126,522. There are liabilities pending, however, aggregating $169,506. Ten thousand damage claims have been filed, and 8,200 of these have been settled. These facts are said to have been included in a report filed with the Governor by the members of the State Board of Liability Awards. The report further states, so it is said, that as a result of the safety devices installed the number of accidents and deaths has been reduced in factories.

PRICES SLIGHTLY DOWNWARD.

The Department of Labor's Index Number of wholesale prices stood at 136.1 for February as compared with 136.5 in January and 135.8 in February, 1913. Dairy products, especially eggs, were lower; poultry, sheep, cattle and beef showed declines; but grains and fodder and hogs advanced somewhat. Textiles were also down slightly, but lumber, paint and oils, and furs averaged slightly higher. In retail prices potatoes were advancing, and butter was upward, but eggs declined considerably.

NEW BRUNSWICK PACKING CO.

The New Brunswick Packing Company, Limited, has just been organized by representatives of local and English capital. Its purpose is to establish a pork packing plant at St. John, and it has purchased five farms, with a total area of 1,270 acres, upon which hogs will be raised on a large scale. The company has also entered into a contract with two large farmers to supply one thousand to six hundred hogs respectively during the first year. It is the intention of the company to give every encouragement to farmers to raise hogs, and to develop its business so that it will be able to build up an export trade. The authorized capital is $99,000, of which only $70,000 will be issued at present, and $45,000 has already been subscribed.

UPSETTING AND FORGING MACHINE.

The Sudbury Construction & Machinery Company, Limited, Sudbury, Ontario, have an inch-and-a-half upsetting and forging machine they require for their own use about five hours per day. They wish to run this machine day and night, and invite correspondence from users of forgings who are looking for an interesting proposition.

WALL PLASTER

that will be a PROTECTION is what you require for your new building. The "EMPIRE" brand not only fulfills the functions of an ordinary wall plaster by keeping out the cold. It does more. Being a Gypsum plaster it is incombustible, and forms a perfect protection for steel construction—the plaster that lasts longer than the material it covers.

Write for Specification Booklet.

MANITOBA GYPSUM CO., LIMITED
WINNIPEG, MAN.

999. **Paper Bags.**—Samples and prices are inquired for by a South African importer.

1. **Furniture.**—Catalogues and quotations f.o.b. are requested by an Orange Free State firm on all classes of furniture.

2. **Hardware.**—Catalogues and quotations on hardware in general are requested by an Orange Free State firm.

3. **Organs.**—An Orange Free State firm requests correspondence, catalogues and f.o.b. prices on Canadian organs.

4. **Motor Cars.**—A South African firm of general engineers and agents in the Orange Free State requests correspondence re agency for Canadian motor cars, four and five seaters, to cost c.i.f. Durban £300.

5. **Boiler Composition.**—A South African firm with headquarters in Orange Free State, will purchase direct, or act as agents for Canadian-made boiler composition.

6. **Carriage Parts.**—A South African importer makes inquiry for catalogues and prices on all kinds of carriage parts.

7. **Dairy Machinery.**—A South African firm of importers asks for catalogues and prices on Canadian dairy machinery.

8. **Agricultural Machinery.**—Inquiry is made by a South African firm for catalogues and prices on Canadian agricultural machinery.

9. **Machinery.**—A South African firm of general engineers and agents are prepared to consider Canadian machinery agency in such lines as irrigation, milling or boilers. Correspondence is requested.

10. **Dairy Machinery.** A South African importer requests correspondence re dairy machinery.

11. **Implements, Dairy.**—A South African importing house asks for quotations and prices on Canadian-made dairy implements.

12. **Handles.**—Inquiry is made by a South African firm for catalogues and prices on Canadian-made handles of all kinds.

13. **Hardware.**—Catalogues and prices are requested on Canadian hardware by a South African importing house.

14. **Fencing Material.** A South African importer wishes samples and quotations on Canadian fencing material.

15. **Paints.**—A South African importer asks for prices and samples, if possible, on Canadian-made paints.

16. **Stoves.**—Catalogues and quotations are inquired for by a South African importer.

17. **Brushware.**—A South African importer asks for catalogues, prices and samples, of possible, on Canadian brushware.

18. **Paints.**—Quotations f.o.b. and samples, if possible, are requested on Canadian-made paints by a South African importer.

Give the Sunlight a Chance

THE sun provides the cheapest light in the world. Get it into every corner and department of your factory and warehouse by using the interior paint that reflects the natural outside light.

REFLECTO

MILL WHITE

"The paint that reflects the sunlight"

SAVES ARTIFICIAL LIGHT

This new white paint diffuses the light from the windows evenly throughout the room or shop. You do not have to turn on the electric light for the man who works a few feet from a window. Cut down your lighting bills and let REFLECTO do the work.

IMPROVE THE WORKING CONDITIONS AND YOU IMPROVE THE PRODUCT

A well-lighted shop increases the output of your men. A bright, cheery work-room means happier employees — more and better work done. REFLECTO lengthens the daylight working hours by keeping the shop bright and light, and increases the efficiency of the workers.

ADDS WORKING SPACE TO YOUR FACTORY

Dark corners of your factory, which are not now in use, can be brought into service by giving them more light, and this can be done at small cost by coating the walls with REFLECTO — "The paint that reflects the sunlight."

Write us for full information.

MARTIN-SENOUR PAINTS & VARNISHES

The Martin-Senour Co.

LIMITED

MONTREAL

MARTIN-SENOUR PAINTS & VARNISHES

AMONG THE INDUSTRIES

We direct the attention of our readers to this department, which has greatly enlarged and improved. Arrangements have been made to secure interesting news of manufacturing from all parts of Canada. We shall be glad to publish items of interest to manufacturers free of charge in this department provided they should not be properly classified as advertisements. If you have interesting items please send them in.

Brantford, Ont.

A six months' rebate of taxes on certain property, on recommendation of the assessors, has been granted the Waterous Engine Company.

The Niagara Silk Mills Co., Buffalo, N.Y., are preparing plans for the erection of a three-story silk mill on Drummond and Sarah Streets.

Barrie, Ont.

The Canadian Bank of Commerce will occupy the bank building to be erected by the Dominion Realty Co., Limited, Toronto.

Brockville, Ont.

A coal elevator will be erected by the Central Canada Coal Company at a cost of $20,000.

Brampton, Ont.

The Lindus Co., Limited, propose to erect a factory costing $50,000. They are asking the town for a loan of $20,000 for fifteen years.

Bathurst, N.B.

A pulp and paper mill are to be erected at Bathurst. It is proposed to construct a pulp mill during the present year, and have it ready for operation by the first of next May, and the paper mill when built will produce a grade of paper that is in great demand and has hitherto been imported from the United States. The Bathurst Lumber Co., Limited, which has sawmills and controls 2,800 square miles of timber limits near Bathurst, has completed the organization of the Bathurst Pulp & Paper Co., Limited, which will have three million dollars capital.

A company known as the Bathurst Pulp and Paper Company has been organized here with $3,000,000 capital to erect pulp and paper mills at Bathurst. The mill is to be built during the present year.

Copper Cliff, Ont.

The Bank of Toronto are having plans drawn for a branch bank here.

Chatham, Ont.

It is planned to submit a by-law for granting a bonus to the Concrete Products Company. A previous by-law was defeated.

A bonus of $10,000 will be granted by the council to Messrs. John and Chas. Dick, who are considering the erection of a felt factory.

Calgary, Alta.

Messrs. Hubble & Kelley, 6th Ave. and Centre St., are contemplating the erection of a ten-story stores and office building at a cost of $165,000.

Alex. Pantages, Seattle, Wash., U.S.A., is looking for a site suitable for the erection of a $250,000 theatre.

Coldbrook, N.B.

The Dominion Motor Car Company, recently organized, will take steps to erect a plant at Coldbrook, near St. John. It is likely their intention to assemble there parts of cars and turn out the finished machines, making St. John their manufacturing and distributing centre for Canada. The promoters of this enterprise are New York men, and it is announced that model cars have already been constructed in that city from parts imported from England.

Coaticook, Que.

Charles Neidner's Sons Company have removed their office, warehouse and factory to Coaticook, Que., where with increased facilities they will be in a position to make prompt deliveries and fill any requirements that may be entrusted to them.

Certain concessions have been granted by the town to the Niender Co. of Malden, Mass., U.S.A., for the erection of a hose factory.

Collingwood, Ont.

The ratepayers of Collingwood voted on Feb. 24th in favor of a by-law authorizing the town to guarantee the bonds of the Imperial Steel & Wire Co. to the amount of $10,000. It is the intention of the company to erect a wood screw factory which will give employment to 120 men in addition to the 200 already employed in the wire works.

Cable Address "Therson" Toronto *Telephone Main 2863*

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"MADE IN CANADA"

FOR those who admire good furniture, that made by the Toronto Furniture Company possesses a charm that can only be ascribed to the thoughtful, almost loving care with which the craftsman has wrought it. It is noticeable in the construction of each piece, in the beautiful and well-balanced proportions, in the perfect harmony and matching of fine woods, and in the appeal it makes to those who admire exquisite joinery and the highly artistic adaptation of lines beautiful to things useful.

There is nothing frivolous or extravagant about our furniture. It is built for use and long service. Its beauty lies in the elegance, simplicity and dignity of the design and the quality of the wood employed.

Our line affords a broad selection of examples in the spirit of the notable periods in English cabinet making, which you now have the opportunity of viewing in the showrooms of the representative dealer in your town. We will be glad to send you his name upon request. Also a copy of our finely illustrated book on period furniture.

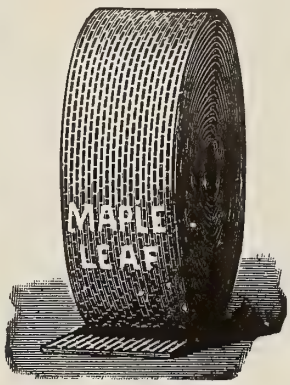
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"Maple Leaf" Brand Stitched Cotton Duck Belting

The best on the market for—
TRANSMISSION OF POWER,
CONVEYING, etc.

DOMINION BELTING CO., Limited
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THE REASONS

Mechanics like their "feel" and "balance"--and do more and better work with them.
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If you want to decrease your filing costs—increase your output—and insure utmost accuracy in your product—try the plan of "using more Nicholson made Files." A 15c. investment in an Extra File usually makes and saves you $1.50. Not a bad return for your money on each File you use.

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PORT HOPE - - - - - - ONTARIO

Dundas, Ont.

The old Maw & McFarlane foundry has been purchased by the Dickson Building Co. from Alex. Galbraith, and will be completely remodelled. The north side of the building has been leased to the Dominion Mineral Water Co. of Toronto, who will manufacture mineral waters on a large scale.

Drummondville, Que.

A factory will be erected by the O. B. Shoe Co., Limited, at a cost of $120,000, to replace the building recently destroyed.

Dunnville, Ont.

Samuel M. Amm spent several days in Dunnville and vicinity on business connected with his gas interests. Mr. Amm still retains leases covering 500 acres of proved territory within a few miles of town, and it is his intention to acquire 2,000 acres additional. A new company to develop this field is now in process of organization.

The Sewsure Manufacturing Company, makers of shirts and aprons, is moving this week to Toronto. The industry, which was started in a modest way a few years ago by Robert Jackson, and is now owned by Charles M. Armstrong, has grown to considerable proportions. Some of the company's operatives are going to Toronto with it.

Edmonton, Alta.

Water rights have been secured at Manchester subdivision by the Dixon Steel & Bridge Company for the erection of a plant to manufacture steel bridges, etc.

Edmonton, Alta.

Water rights have been secured at Manchester sub-division by the Dixon Steel & Bridge Company, and they will erect a plant to manufacture steel bridges, etc.

East Angus, Que.

The Brompton Pulp & Paper Co. proposes to erect a pulp mill here.

Fort William, Ont.

Orders are in the hands of the Canada Iron Foundry now for cast-iron pipe for Fort William, Edmonton, Moose Jaw, and Swift Current. They are so busy that a full staff is employed full time.

A three-story customs house building will be erected at Fort William by Mr. M. H. Braden, contractor, at a cost of $175,000.

Fredericton, N.B.

A plant for the manufacture of concrete for both industrial and ornamental purposes at Fredericton has just been announced. The new company has purchased the foundry formerly used by the I.C.R. at Gibson and will install the latest and most up-to-date machinery and equipment. The company starts with a capital stock of $25,000.

Eganville, Ont.

The Standard Chemical, Iron & Lumber Co. are considering the erection of a sawmill here.

Gravenhurst, Ont.

Flax Towels, Limited, have just been chartered with a capital of $100,000, divided into 10,000 of 7 per cent. preference shares and 10,000 shares of common stock, the shares being $5 each. This company has been organized to put up a plant in Gravenhurst for the purpose of manufacturing towels from flax straw. Later a linseed oil mill will be constructed, as well as an additional plant to manufacture other fabrics.

Grand Lake, Victoria, Que.

When the North Railway Co. build their line between Montreal and a point on the G.T.P., Fraser & Co., 74 Nepean St., Ottawa, may remove their Deschenes mill.

Grimsby, Ont.

Architect Jos. Daw, St. Catharines, will receive tenders for a winery, to cost $15,000, for the Pelee Island Wine & Vineyard Company, Brantford.

Galt, Ont.

The Shurly-Dietrich Company is rebuilding the portion of their extensive plant recently destroyed by fire, with a loss of $200,000. The Board of Trade is negotiating with the company with a view to re-establishing larger works, conditional on due assistance from the town.

A new iron working industry has decided to locate in Galt, and will manufacture grinders, polishers' drills and lathes. Lack of industrial sites is seriously hampering efforts to induce factories to locate here. Eligible available sites are all occupied and the corporation is faced with the problem of acquiring more land.

Granby Bay, B.C.

One of the largest smelting plants in the Pacific northwest has been completed by the Granby Smelting Company, which has its headquarters at Grank Forks, B.C. The entire construction includes the smelter hydro-electric power plant, machine shops, and an electric railway system. The purpose of the company primarily is to handle the output of its Hidden Creek copper mines, which have at present about 8,000,000 tons of ore in reserve containing from three to five per cent. copper. The cost of the plant is estimated at $2,500,000.

Guelph, Ont.

A factory site will be located in this town by a Chicago firm to manufacture counters and show-cases.

Plans are being prepared for the erection of a factory for Sherer & Gellett, manufacturers Clean Food Counters, Chicago, Ill.

Hamilton, Ont.

A number of big works to be proceeded with this year include a power plant for the Dominion Power & Transmission Company to cost $1,000,000; harbor dredging and general work, $500,000; McKittrick syndicate bridge, $140,000.

The name of the Canada Steel Company, Limited, has been changed to Burlington Steel Co., Limited. The rebuilt plant is now ready for operation.

Operations will shortly be commenced on the Royal Connaught Hotel, estimated to cost $1,000,000.

Harriston, Ont.

Gunns, Limited, Gunn's Rd., Toronto, are considering the erection of poultry buildings on Margaret Street.

Gunns, Limited, Toronto, are considering the erection of poultry buildings on Margaret St.

Halifax, N.S.

Halifax has a lively hope of soon getting cheap electric power. The Nova Scotia Power Co., now developing Gaspe, expect to be able to generate 15,000 horse-power, and run a distribution wire to Halifax. There is a power company to develop electric power from the Mersey, and another on the St. Margaret's River. With the question of cheap power solved, Halifax would have a great many advantages as a manufacturing centre, having the benefits of cheap water freights for the importation of raw materials.

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51 VICTORIA SQUARE MONTREAL

Write Department "C" for Full Information



A Positive Check on Human Fallibility

Ingersoll, Ont.

The town council has sanctioned the installation of a natural gas system by the Southern Ontario Gas Company.

Lindsay, Ont.

The Cole-Berger Company contemplate building a new factory this spring and the town has loaned the company $12,800 for the purchase of new machinery.

Listowel, Ont.

Tenders will shortly be called for a condensed milk factory to cost $50,000 for the Dry Powder Milk Co., Limited.

London, Ont.

Five thousand dollars' damage was done to the stock of the Dominion Meter Company by a fire, said to have been caused by an attempt to thaw out some pipes with a gasoline torch.

Silverwood's, Limited, Bathurst St., are having plans prepared for a cold storage plant. The plant is to be worked by 500 V.A.C. three-phase motors.

It is the intention of the London & Petrolia Barrel Company to enlarge its plant each year.

Maple Creek, Sask.

A site has been selected by the Canadian Hunt Manufacturing Company for their new factory, and preparations will shortly be made for building.

Moncton, N.B.

J. A. Marven, Limited, is contemplating the erection of a biscuit factory here.

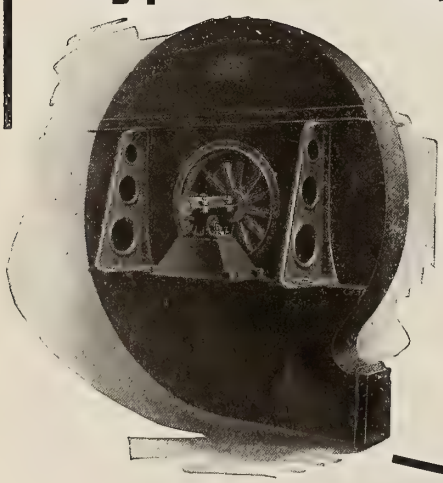
Medicine Hat, Alta.

According to W. M. Henderson, manager of the Carlyle Creamery Company of this city, they will erect a large plant as soon as building operations open in the spring.

A site has been secured by President Pearson, of the Medicine Hat Pure Ice Co., and Mr. Davidson, of the same concern, for an ice plant. The plant will be one of the largest of its kind, and the firm are contemplating the building of a skating rink and curling rink in addition to the ice-making plant. It is their intention to have the plant completed in time for the summer ice trade.

THE BOOTH-COULTER COPPER & BRASS COMPANY, LTD.
SHEETS TUBES COPPER & BRASS AND RODS
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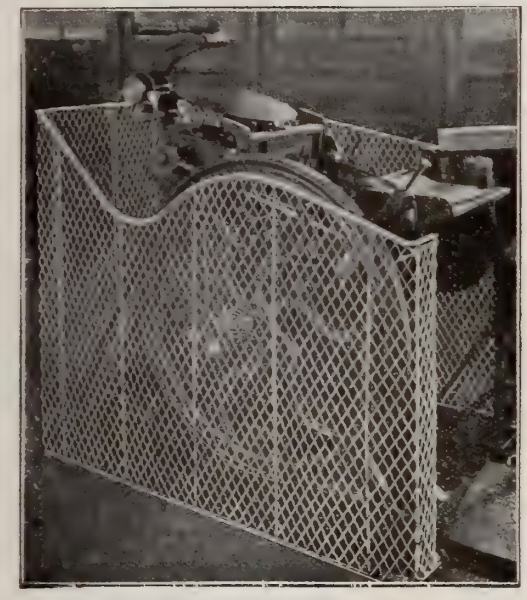
Write for bulletin No. 801—It contains valuable information about Pressure Blowers.

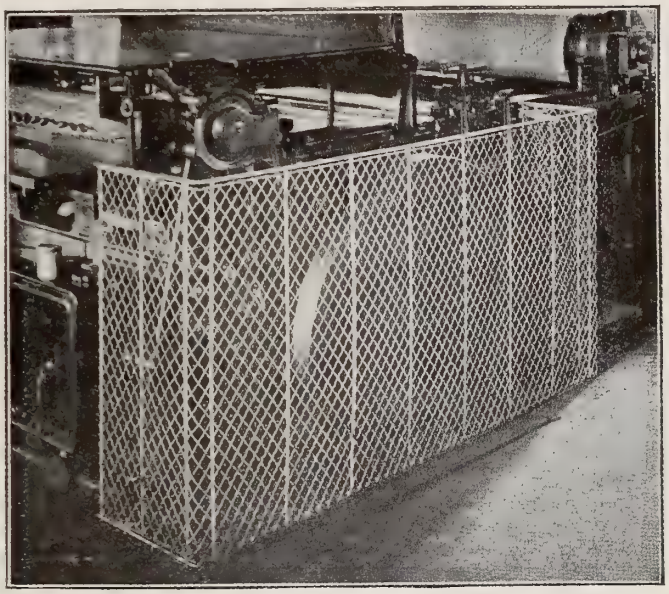
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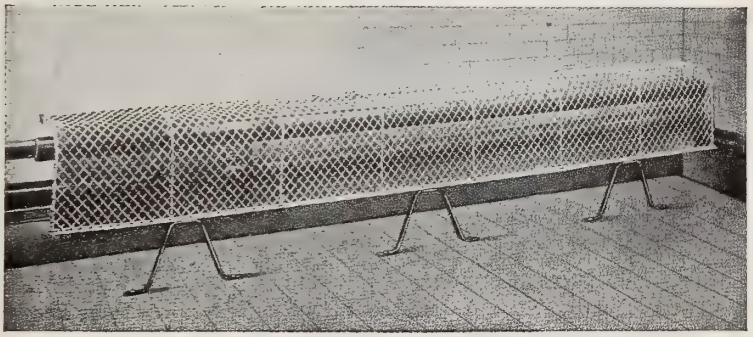
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Montreal, Que.

A notice has been issued confirming the recent announcement that the Northern Electric Co., Ltd., has acquired the business and undertakings of the Imperial Wire & Cable Co., Ltd., and the Northern Electric & Mfg. Co., Ltd., subsidiaries of the Bell Telephone Co. of Canada.

A site for a warehouse is wanted by the Robinson Oliver Grain Company, Board of Trade Building.

Contracts will be awarded shortly for the erection of a factory for the Tuckett Tobacco Co., Limited.

A large office building may be erected by Caron Bros., 233 Bleury St., on the site they have purchased at the corner of Bleury and Concord Streets.

J. S. Fry & Sons, Limited, are considering the erection of a manufacturing plant.

Tenders for the erection of a bank and office building for the Bank of Toronto are invited by Hogle & Davis, 80 St. Francois Xavier St.

Seaman-Kent, Limited, have plans drawn for a warehouse and office to cost $10,000. Tenders will be called immediately.

Nanaimo, B.C.

A packing house has been opened by the Great West Fisheries, Limited, here.

A plant will be erected here by the Nanaimo Beveling & Mirror Company.

New Westminster, B.C.

The New Westminster Woodworking Company's mill, Lulu Island, recently destroyed by fire, with loss of about $75,000, will be rebuilt at once.

Niagara Falls, Ont.

If the citizens will interest themselves to the extent of $10,000 the Automatic Parcel Checking Company will probably build a factory here. No concessions are asked except the usual terms given to manufacturers for power and water.

The Niagara Linen Company have plans prepared for their factory. A temporary structure is to be erected at present, to be replaced later by a permanent building.

Work will be resumed at once by the Standard Clay Product Company, whose plant was recently destroyed by fire. The new factory, which was just completed, escaped the fire, and the operations of the company were not crippled to any extent. The new plant will employ 170 men and will have an annual output of 30,000 tons of sewer pipe. The company owns sixty-five acres of clay and shale lands, and the quantity of raw material in sight is over 2,000,000 tons. This clay and shale are above drainage and are easily obtained. That plant that was destroyed will be rebulit at once.

Orillia, Ont.

Messrs. J. R. Eaton & Sons, Limited, will erect a woodworking factory at an estimated cost of $100,000. A by-law will be submitted to ratepayers on March 30th to sanction loan of $50,000.

Princeton, B.C.

An addition will be made to the plant of the B. C. Portland Cement Co., Limited, practically doubling present output of 600-700 bbls. per day to 1,200-1,500 bbls.

Penticton, B.C.

Lither Dehydrating Co. have nearly completed a new plant to handle 300 bushels per day.

Prince Rupert, B.C.

At a cost of $200,000 the Imperial Oil Company will erect five large storage tanks and warehouse buildings.



The above illustration shows reinforced concrete Spinning Mill, Underwear Factory and Bleachery of the Shawinigan Cotton Company, Limited at Shawinigan Falls, Quebec, built in 1910 according to our plans and under our supervision and has recently been extended under our directions by additional bays to the right of photograph.

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PROGRESS demands that the modern mill be designed and built to properly perform its functions, and to permit of extension as the industry grows, with minimum inconvenience to manufacturing.

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During this time our organization has maintained a steady, healthy growth. Our complete staff includes architects, mill and structural engineers, civil, mechanical and electrical engineers.

You can profit by our knowledge and experience.

Consult us when you are considering the erection of a new plant or extension to your present one.

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SIR EDMUND WALKER, C.V.O., LL.D., D.C.L., President

ALEXANDER LAIRD, General Manager

JOHN AIRD, Assistant General Manager

Capital - - $15,000,000
Rest - - $13,500,000

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The Travellers' Cheques issued by this Bank are a most convenient form in which to carry money when travelling. They are issued in denominations of

$10, $20, $50 or $100

and the exact amount payable in **Austria, Belgium, Denmark, France, Germany, Great Britain, Holland, Italy Norway, Russia, Sweden** and **Switzerland** is stated on the face of each cheque, while in other countries they are payable at current rates.

The cheques and all information regarding them may be obtained at every office of the bank.

THE ROYAL BANK OF CANADA

Incorporated 1869

Capital Authorized . . . $25,000,000
Capital Paid up $11,560,000
Reserve & Undivided Profits $13,000,000
Total Assets $180,000,000

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Savings Department at All Branches

Port Coquitlam, B.C.

The first ocean-going vessel built on the Fraser or Pitt Rivers was successfully launched from the ways of the Coquitlam Shipbuilding and Marine Railway Company at the confluence of those rivers on January 31st. The schooner cost $70,000.

It is the intention of the Coquitlam Ice Co., on Dewdney Trunk Road, to extend their plant, and work is to commence immediately on a new ice house on the rear of the establishment.

Port Moody, B.C.

An oil-refining plant is to be located here by the Imperial Oil Company. The site has been purchased at a cost of $150,000 and the expenditure on the plant will reach close on $500,000.

The Robert McNair Shingle Company have made a start on their big shingle mill. Twelve machines with a capacity of 360,000 per day are being installed, and the company will also undertake extensive logging operations in the district. They will employ 150 men.

Quebec, Que.

The well known manufacturing firm of A. Belanger, Montmagny, Que., has been incorporated at Quebec with an authorized capital of $300,000 under the style of A. Belanger, Limited. Among the incorporators are Mr. P. Bechard, the present manager of the firm; Mr. J. H. Fortier, of Quebec; and Mr. D. O. Lesperance, M.P.

Regina, Sask.

At a cost of $300,000, Leitch Brothers, Oak Lake, Man., will erect a 3,000-barrel flour mill, a 300,000-bushel elevator, a 200-bag oatmeal plant and a cooperage and bag factory here.

It is stated that $175,000 will be spent on the buildings and equipment of the new factory for the Western Tire & Rubber Company.

The Gutta Percha Rubber Company have entered into an agreement with the Regina City Council, to erect a large distributing warehouse at Regina in the civic industrial district.

A permit has been issued to the Constructors, Limited, for an office building to cost $15,000.

A new Winter Fair building has just been completed by the Parsons Construction Company at a cost of about $130,000.

The Independent Tire Company, Galt, Ont., have secured a site for the erection of a warehouse. Estimated cost $10,000.

Two good industrial propositions are being considered by the Regina City Council at the present time. One aims to utilize the flax straw for the purpose of making twine, etc. The other aims to use all kinds of straw for the manufacture of briquettes for fuel.

St. Catharines, Ont.

The Consumers' Rubber Company by-law being defeated, the city council have authorized the industrial commissioner to re-open negotiations with the company with a view to inducing them to locate here.

Sydney, N.S.

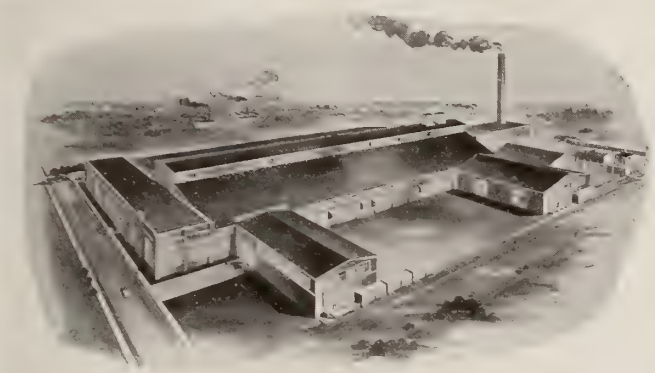
W. A. Winfield is interested in a company which is proposing to establish a plant for distilling and bottling water for drinking purposes.



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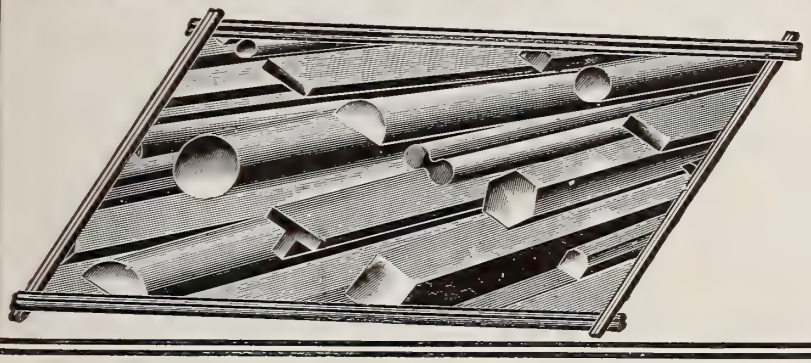
Cold Drawn, Cold Rolled
Turned and Polished Steel

The Canadian Drawn Steel Co., Ltd.

HAMILTON, CANADA

UNION DRAWN STEEL CO., Limited

HAMILTON, ONTARIO



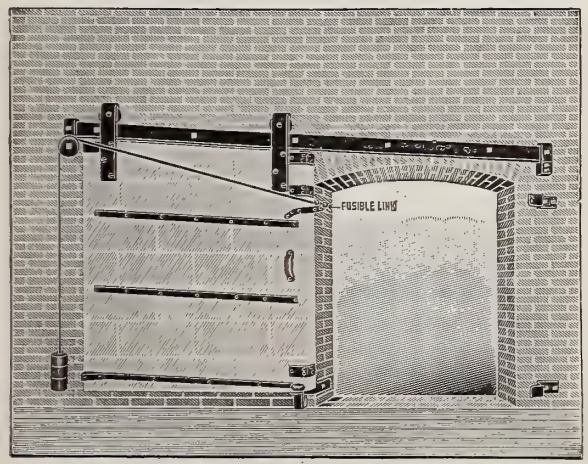
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Sheets and Specialties
Memo and Price Books
Diaries---Office and Pocket
Fine Leather Goods
Ladies' Hand Bags, Bill Cases
PAPER, OFFICE STATIONERY

Saskatoon, Sask.

As already outlined, Saskatoon's constructional programme for 1914 involves an expenditure of between four and five millions. It is fair to assume that Saskatoon will benefit considerably from the increased activity which will be experienced in the district between Saskatoon and Calgary upon the operation of the new C.N.R. line between these cities.

St. John, N.B.

The estimated cost of the new post-office building to be erected here is $500,000. The steel work is completed.

A factory has been erected here for the manufacture of aerated waters, and will turn out a variety of products on a large scale for the Canadian market.

The negotiations between T. McAvity & Sons, Limited, and the city council with reference to the establishment by this company of an iron and brass manufacturing plant involving an ultimate expenditure of two million dollars, have proceeded so satisfactorily that the company expect to be able to begin work on the site of their new plant in the spring.

The contract has just been signed for completely remodelling a building at the corner of King and Germain Streets for the St. John, N.B., headquarters of the Canadian Pacific Railway Company. It is a large brick building, but will be entirely remodelled and another story added, so that the company may assemble there its various railway, steamship, telegraphic and other offices. Last year the company erected at West St. John a new million bushel grain elevator.

Sault Ste. Marie, Ont.

Tenders will be received about May 1st by the Algoma Steel Corporation, Limited, for open hearth furnaces at Steelton, Ont. The cost of the work is placed at $250,000.

Sandwich, Ont.

The Canadian Alkali Co., Limited, are erecting new factory buildings to cost $2,000,000. The Starrett Company, Detroit, Mich., have the contract.

An agricultural implement plant will be erected on the site purchased by the William Galloway Company.

Swift Current, Sask.

The Swift Current Cement Products Company will increase the capacity of their plant at once owing to the increased demand for their product.

Sherbrooke, Que.

An active advertising campaign will be conducted with a view of making this town better known as an industrial centre. The town council and Board of Trade are working together.

Sarnia, Ont.

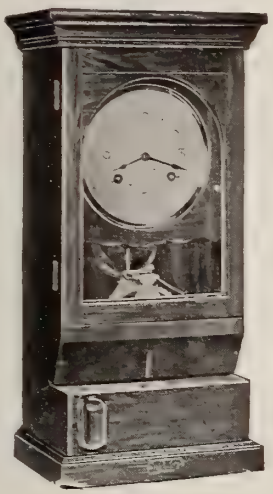
The Imperial Oil Company has a large number of boilermakers now at work on their plant placing several new crude stills in position on the river side of the refinery. About ten of these new stills are under way, and it is expected that more will be put up as soon as possible.

The Nye Odorless Crematory Co., Atlanta, Georgia, U.S.A., contemplate erecting a factory for the manufacture of incinerators.

The capital of the Mueller Mfg. Co., of Sarnia, has been increased from $300,000 to half a million. The rapid growth of the business justified the increase, and this spring it is planned to make a considerable increase in the number of men employed. New machinery costing $20,000 will be installed, and it is understood that other building extensions will be made to the plant.

SAVE MONEY IN WAGES

TIME RECORDING SYSTEMS are essential for the protection of manufacturers. Wages form the heaviest single item in the expense account of most businesses. You do not know whether you are getting service for your wage expenditure unless you have an automatic system to record the times of arrival and departure of employees. Write us for illustrated catalogue.



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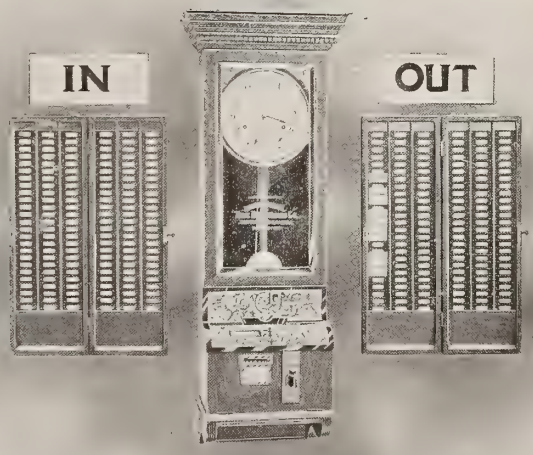
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Steelton, Ont.

The Algoma Steel Corporation, Limited, are contemplating the construction of open hearth furnaces, and tenders will be received after May 1st. The specification calls for brick, steel and hollow tile construction, brick and concrete foundation, corrugated iron roofing, electric lighting, temperature regulators, concrete and fireproof floors, metal lath, sash and ceilings, wire glass, one freight elevator, skylights, ventilators, fireproof doors, architectural iron railings and stairs coal conveying and hoisting machinery, boilers, blowers stacks, pumps, air compressors, gas engines, motors and cranes.

St. Stephen, N.B.

The new shoe factory which has been erected at St. Stephen is now about ready to begin operations. The cutters have already begun work. This factory has already booked large orders.

Stratford, Ont.

The Wood Mosaic Company sustained a much greater loss than they at first supposed in the fire at Louisville and Albany, and nothing will be done to the proposed factory for a year.

Thomas Hepburn, architect, is drawing plans for the Diebel furniture frame factory, and he also has plans in progress for the Morelock upholstering factory.

The following factory by-laws have recently been passed by the ratepayers: (1) Granting a fixed assessment of $7,500 to the Stratford Mfg. Co., Limited, who are about to extend their factory; (2) Granting $3,500, a site, and fixed assessment to Chas. Diebel, of Hanover, who proposes to erect a furniture frame factory; and (3) Granting $2,500, a site, and fixed assessment to John S. Morlock for the erection of an upholstering factory.

Toronto, Ont.

A five-story building was destroyed by fire at 579 Richmond St. West. The firms affected by the fire are: Long & Co., $80,000; Independent Cloak Co., $30,000; Beaver Shirt Co., $20,000; Monarch Clothing Co., $30,000; L. Freifield & Co., $15,000; loss on building, $65,000.

Geo. A. Rudd & Company's harness factory, King St. West and the Robert Crean Company's hat manufactory adjoining were destroyed by fire. The total damage is estimated at about $130,000, divided as follows: Rudd & Company, building, $20,000; contents, $25,000; insurance, $40,000. Crean Company, building, $10,000; contents, $75,000; insurance, $55,000.

The business of the Tungstolier Co. of Canada has been taken over by the Canadian General Electric Co., Limited. It is the intention to carry in stock a large assortment of electric fixtures for both commercial and residential lighting.

The first Ford Motor Company assembling and service plant in Canada will be built this spring at Toronto. This building will be similar in stye and construction to those in the United States, where there are a chain of eighteen of them in as many American cities.

The Polson Ironworks are in the market for a double-ended punch, a five-ton locomotive crane and a number of light air tools.



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HOPE STEEL SASH

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¶ The old style, poorly lighted factory building with windows of wood sash is fast disappearing. In its place rises the modern building, attractive in appearance, with large windows of HOPE STEEL SASH that flood the interior with daylight.

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TORONTO MONTREAL ST. JOHN, N.B.
VANCOUVER, B.C.

Vancouver, B.C.

The Canadian Matthews Gravity Carrier Company are building a spiral conveyor for the new department store of the Hudson's Bay Company.

A $500,000 oil-refining plant will be erected by the Imperial Oil Company on the 100-acre site secured by them on Burrard Inlet.

A boiler house will be built by Bettschen & Higgins.

A two-story factory will be erected by the British Sugar Refinery Company at a cost of $2,500.

The British Columbia Construction & Engineering Company have the contract for the Hudson's Bay Company's department store. The contract price is between $700,000 and $800,000, exclusive of the cost of excavation and also the mechanical equipment.

A fertilizer plant will be erected on the Skeena River, B.C., by the James M. Davidson Fisheries of Edinburgh, Scotland. The machinery is to be shipped from Scotland, and it is expected that the completed plant will cost in the neighborhood of $100,000.

A large office building will be erected by the Canadian Bank of Commerce.

A permit has been issued to Cope & Sons, Limited, for the erection of a new factory on Beatty Street. The estimated cost will be $70,000.

It is expected that the new factory of the Restmore Manufacturing Company, Limited, will be ready in three or four months.

Welland, Ont.

Construction work will commence the latter part of this week on the Electric Steel & Metals Company's site.

A site has been secured by the Welland Lumber Co., Limited, for the erection of a sash and door factory.

The million-dollar plant that is being erected for the Union Carbide Company by the Lackawana Bridge Company. Buffalo, N.Y., is nearing completion.

Winnipeg, Man.

Plans are in progress by the Albertson Engineering Company, Kalamazoo, Mich., and Toronto, Ont., for the erection of a board mill which will use flax straw for the making of board for the Austin Paper Company.

Messrs. Carter, Halls & Aldinger Company, of Winnipeg, have the contract for the completion of the hotel buildings for the Olympia Cafe Company. The estimated cost is $400,000.

Weyburn, Sask.

The Acton & Montgomery Co. are in the market for an oxy-acetylene welding plant.

Waterford, Ont.

A factory building has been purchased here by the Universal Chemical & Electrical Company for the manufacture of telephones, electrical fixtures and electrical sundries.



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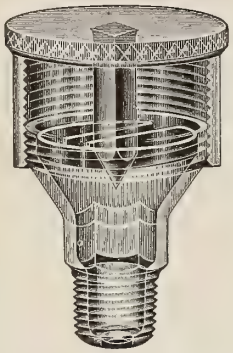
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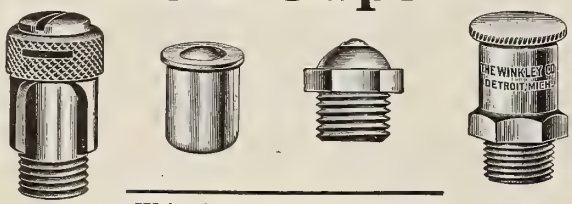
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Write, if interested

Windsor, Ont.

A plant will be built here by J. T. Wind & Company. Detroit, Mich., manufacturers of factory supplies.

The Central Ice & Cold Storage Company will build a five-story steel and concrete construction plant with a capacity of 500,000 cubic feet at an estimated cost of $150,000.

Ratepayers of Windsor voted strongly in favor of three industrial by-laws during March, and all carried by safe majorities. The concerns benefited are: The Central Ice & Storage Company, the Ideal Concrete Machine Company, and the Dowsley Spring & Axle Co.

FIRST PRINCIPLES OF FACTORY LIGHTING.

First. The lighting system should always be planned so as to produce light on the working plane, or on the object that is to be made visible, and to protect the eyes of the workers from the direct rays from the lamps.

Second. A matter of great importance is the proper selection of reflectors, not only for the control of the light distribution, but also for the protection of the eyes.

Third. Evenness of distribution and good diffusion are essential factors for successful illumination.

Fourth. The space between the working plane and the ceiling should be illuminated with a moderate intensity, in order to avoid too sharp a contrast between this space and the lower parts of the room.

Fifth. The lighting system should have a low operating and maintenance cost. It should be simple in design, and it should be installed with special reference to permanence and continuity of service.—*Travellers' Standard.*

PORTUGESE ASK FOR CANADIAN CATALOGUES.

Mr. Frederic Nicholls, Portuguese Consul, Toronto, has forwarded to INDUSTRIAL CANADA the following request from the Commercial Association of Lisbon, Portugal:—

"Being desirous of enlarging our commercial business, especially the foreign one, the Directors of the Association have approved of the installation of a room for catalogues of the most important commercial houses in the world, in order to have our business men acquainted with prices of all articles in the world's market, and for the above reason we ask you to be kind enough to invite by the most practical means the commercial houses of your district that export their products to present their catalogues to the Association."

Any such catalogues should be addressed to the Associacan Commercial de Lisboa, Lisbon, Portugal.

An Irishman came ambling into a hotel lobby, and shuffling up to the desk leaned his elbow upon the cold, stony counter and said slowly to the clerk:

"I want a room."

"Yes, sir. What kind?" asked the clerk.

"I want Room 39."

"That's taken. I can give you another just as good."

"Don't want no other. I want Room 39."

"Sorry, sir, that room is now occupied. Here is Room No. 40. I know you will like it. James, show the gentleman to No. 40."

"I don't want it. I want Room 39."

"My dear sir," pleaded the patient clerk, "Room 39 is now occupied by Mr. Dennis McCarthy."

"That's me. I've just fallen out o' the window."—*The Tobacco Worker.*

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Standing By Protection.

MORE important than the tariff changes which it makes, is the clear definition of policy contained in the budget of the Hon. W. T. White, Minister of Finance. The old flag of " Reasonable Protection," under which the national ship has weathered storm and stress since 1878, is still flying nailed to the masthead, and will stay there. Confidence is restored. So long as this policy is in effect, manufacturers can secure capital, develop their industries, give opportunity to workmen, sustain the home market and swell Canada's trade.

After Mr. White's speech, the country gave a sigh of relief. On this continent during the last few years, the tendency has been to lower Protective tariffs. The United States reduced its tariff from an average ad valorem rate of about forty-one per cent. on all dutiable goods to the Canadian rate of about twenty-six per cent.

But, in spite of the fact that, for the first time the average of the tariffs of the respective countries are about equal, and also that, even with equal tariffs, the United States, as the stronger and older nation, has still an immense commercial advantage over us, there were people in Canada who advocated reducing our tariff in generous recognition of the self-interested act of the United States. No sooner was our ancient handicap against Canadian shipment into the United States reduced than they wanted another put on.

In apparent disregard of the Reciprocity Campaign of 1911, Sir Wilfrid Laurier declared in favor of free food for Canada.

What does free food mean? Food includes canned goods, prepared meats, flour, oatmeal, bread, cereals, butter, cheese, biscuits, all of which are manufactured in Canada. Moreover a number of members of the Liberal party have recently declared themselves in favor of free agricultural implements. As the manufacturers of agricultural implements buy for their raw material the finished products of many other manufacturers, the duty would have to be removed on these products as well.

Small wonder that the country was asking: "Where is this going to end?"

And the logical answer was: "The end is Free Trade."

The tariff question in Canada has been political only in name. If the National Policy was introduced by one great man, Sir John A. Macdonald, its spirit was sustained by another great man, Sir Wilfrid Laurier, until he was influenced by the Reciprocity propaganda of United States politicians.

During the regime of Sir Wilfrid Laurier, he numbered among his most stalwart supporters hundreds of Canadian manufacturers, but it is unreasonable to expect their co-operation in any future policy which will result in closing down their own factories.

No political party advocating Free Trade, or anything approaching Free Trade, can secure and retain office in Canada. What political party could face the combined opposition of the thousands of farmers who believe in retaining the home market and have been Protectionists all their lives; of the mine owners and their employees; of the railroads and their employees; of the fisheries and their employees; of the manufacturers, who want to keep their factories running, and of the industrial workers, whose bread and butter depends on the result?

When Mr. White, in referring to Sir Wilfrid Laurier, said: "I have no exception to take to my right honorable friend espousing a policy of Free Trade. I simply desire to say this: that we on this side of the House are ready to accept that gage of battle, whenever he chooses to throw it down," he had a shrewd idea of the strength of his position. It was a strong position, and a sound one.

If this battle of Protection versus Free Trade is to be fought once again in Canada, the sooner it is fought the better. We are confident that Protection will be re-endorsed by the people of Canada, that the Free Trade ghost will be finally laid and will haunt us no more.

The attitude of the Government was candidly defined by Mr. White as follows:—

"I desire to affirm the adherence of the Government to a fiscal policy of reasonable Protection to Canadian industries including of course the great basic industry of agriculture. That policy is the historic National Policy of Sir John Macdonald, inaugurated by him and continued by his successors in office down to the present time. We believe it is the best, indeed the only and in a sense the inevitable policy for Canada, situated as it is geographically and in the existing fiscal conditions of the world to-day. Under that policy, Canada has prospered in the past and will continue to prosper in the future. We believe it to be the true policy for Canada and for every part of it if we are to regard as desirable, stable business conditions and a diversified national life throughout the Dominion. It means the development of our natural resources, the maintenance and extension of our industries, a fair wage standard for our artisans and a stable and profitable home-market for our farmers, thus justifying its name as a national policy—a policy in the interests of the nation as a whole. The evils of a high Protective tariff are too well known to make it necessary that I should discuss them here. The tariff of Canada has not been a high tariff but one affording a moderate degree of Protection only. The best evidence of this is to be found in the fact that our tariff of to-day imposes an average rate of duty upon dutiable goods of about twenty-six per cent., whereas the Underwood Tariff of the United States, which was designed to substantially cut down the Protective duties of the Payne-Aldrich Tariff, has been authoritatively represented as imposing an average duty upon dutiable goods of about the same percentage as ours of to-day."

As a statesmanlike deliverance, this deserves to rank with the famous speech of Abraham Lincoln at Gettysburg. Lincoln pleaded for the preservation of the Union; Mr. White pleads for the industrial preservation of Canada.

Mr. White has struck a blow for "Reasonable Protection." If there is anyone who wants to strike for Free Trade, let him come forward.

Industrial Housing in Calgary.

HOUSES for workmen are being built in Calgary. This is a wise move and will benefit the manufacturers of that city. A factory cannot operate without employees and employees cannot live without houses. Moreover, they cannot pay rents based on inflated land values.

We have a suggestion for western cities and towns. Vacant land, deserted by speculators, is being thrown back on the municipalities for taxes. Build small houses or cottage flats, similar to those in Toronto, on this cheap land and rent them to factory workers. Manufacturers, will doubtless help to furnish the capital needed for building.

Milling Industry None to Strong.

DURING 1913, the capacity of the flour mills of Canada increased only about two-thirds of one per cent., while the number of mills in operation decreased from 634 to 609, according to the following statistics compiled by the *North-Western Miller*:

	Number mills.	Barrels daily.
Nova Scotia	31	800
New Brunswick	47	1,600
Prince Edward Island	20	600
Quebec	36	14,500
Ontario	347	62,500
Manitoba	52	16,500
Saskatchewan	39	7,500
Alberta	31	7,000
British Columbia	6	1,000
Totals		
1913	609	112,000
1912	634	111,200

What would have happened if Mr. White had removed the duties on United States flour?

The above figures show two things: first, that the small old-fashioned village mills are feeling the strain of competition with the big modern mills; and second, that the daily output of Canadian flour mills is not increasing in proportion to our rapidly-growing population.

If Mr. White had listened to the "free wheat" cry, our small flour mills would have been subjected to the competition of the huge United States mills, as well as that of the other Canadian mills, and many of them would have been closed; also, it is certain that our daily output of flour, now almost stationary, would have decreased.

Speedy Decisions of Railway Board?

THANKS are due to Hon. H. L. Drayton, K.C., Chairman of the Board of Railway Commissioners, and his associates for the celerity with which judgment was given in the Western Rates case.

The case dragged its slow length before our eyes for many weary years, during which the hearings were held, but when the evidence was finally in the Board discharged its judgment with commendable promptness.

This is a repetition of the burst of speed shown by the Board in the Express Rates case.

It is refreshing to see a tribunal make up its mind quickly and decisively. We suspect that many of our High Court judgments which are set away to cool for several years are stone cold when they are finally exhumed to the gaze of an indifferent public.

Listen to Tom Fitch!

WHO is Tom Fitch? Tom Fitch is the vice-president of the United States Brotherhood of Locomotive Engineers. If Tom acts as he talks, he should be appointed the absolute despot of organized labor. Talk on, Tom Fitch, so long as you speak golden words of wisdom like these to your fellow-members:

"If you don't like the law, then use your votes to change it. But while it is a law, drop the club and knife and the gun and the dynamite bomb and obey the law. If there is a worker who has what you consider to be bad taste and the poor judgment not to belong to a union, you are not obliged to associate with him or greet him with friendliness when you meet. But you are obliged not to assault or molest him. He may be, in your opinion, a scab, but he has a legal right to be a scab if he chooses. He has a legal right to work for whomsoever he pleases, and for whatever number of hours in each day he pleases. Persuade him to stand by his fellow-workman if you can. That is your right. But keep your hands off him. You may be sure that if you attempt violence, there will step to the front a deputy United States marshal who will say to you with a voice of 75,000,000 of people, and with the bayonets of an army behind him, 'Let that man pass to his labors.'

"I say to you, gentlemen, and I say it in all seriousness, that if this government is to endure, this thing must stop, for no government can permanently endure which long permits bands of insurrectionists to override the constitutional rights of its citizens."

Keep Protection to Canadian Farmers.

"WHERE is free food to be found?" said Mr. John Webster, M.P. for Brockville, in the House of Commons during the Budget debate. "Where is it to come from? Is Canada not one of the great producing nations in the world? Are we not proud of the position which the agriculturists of this country occupy to-day? We are, and the farmers of this country, by obtaining high prices, are only coming into their own, and I hope they will continue to get those high prices for the next twenty-five years. They are only now beginning to realize what it is to have a home market at their own door. That is the best market for the products of the farm. The field crops of Canada last year reached the enormous sum of $553,000,000. Where was this great crop consumed? Eighty per cent. of the total crop of Canada was consumed in her own markets. The farmer deserves the same amount of protection as the manufacturer, the artisan, the mechanic and the labourer."

Manufacturers will be the first to advocate retaining for Canadian farmers the protection which they need against foreign competitors. The interests of both farmers and manufacturers coincide as regards Protection. They should fight shoulder to shoulder to retain it. They should unite to resist all who would seek to divide them, class against class. Why should we buy abroad that which is produced at home?

Toronto Raises Wages of Unskilled Labor.

THE City Council of Toronto has raised the minimum wage for unskilled labor to $15 per week.

As a result, the Works Commissioner, who always puts in a governing tender on civic contracts, will have to allow $2.50 per day as the cost of his unskilled labor. The competing contractors, if they can secure laborers for $1.75 or $2.00 per day, will pocket the difference.

Also, the unskilled laborers employed by Toronto manufacturers will probably ask for an increase corresponding to that made by the Council.

During the winter, hundreds of men have been given charity in the form of casual employment, such as digging useless trenches in the snow on the streets. This was a humane thing to do and taxpayers of Toronto did not object, but it was a poor return to these taxpayers to raise the wages of all the city's unskilled laborers with the first breath of spring.

Encourage Mixed Farming on Homesteads.

DID you ever think what it means to "homestead" a piece of land in the West? Many people, as they sit before a grate fire, imagine lazily that it seems an easy way to get a fine farm, and that the Government is benevolent to the homesteader. Did you ever find yourself alone on the wide prairie with only thin columns of smoke on the horizon for your companions?

The writer has had this experience and, while it lasted, he reflected upon the inward meaning of the word "homestead."

In the regulations of the Dominion Government the duties of the homesteader are set forth as follows:

"Six months' residence upon and cultivation of the land in each of three years. In certain districts a homesteader may pre-empt a quarter section (160 acres) alongside his homestead at the rate of $3.00 per acre. He must reside upon the homestead of pre-emption six months in each year of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate 50 acres extra."

Three years for a homestead and six years for a pre-emption! It sounds like terms of penal servitude. At any rate it is "solitary confinement."

Homesteading isn't a picnic. It is no weakling's game, and the man who plays it should not be handicapped. The homesteader needs a considerable amount of capital to keep himself afloat till he gets his patent, especially if he loses a crop or two of the wheat, which is the only aid to his finances.

The homestead regulations have emphasized cultivation unduly. It is important to get the prairie under crop, but it is equally important to provide for feeding the population of these cultivated prairies. The people cannot live by wheat alone.

This fact is being recognized by the Dominion Government, which will shortly introduce amendments to its

regulations, allowing homesteaders to secure titles to land by stock-raising as well as by cultivation.

The Government can scarcely go too far in this direction. The West is now buying thousands of dollars' worth of food which it should produce. Moreover, the land is becoming exhausted through excessive and continuous wheat growing, and needs the fertilization which is secured through rotation of crops and stock-raising. Credit, employment, the difference between plenty and scarcity, hinge on the harvest, a condition which is economically unsound.

Not only should the homesteader be allowed to acquire land by stock-raising as well as by cultivation, but he should also have the period of probation for the performance of regulation duties shortened if he chooses to qualify by raising stock.

This could scarcely be regarded as an unfair preference to the stock raiser, who would almost necessarily be forced to remain on his land for the whole year instead of six months, the regulation time for the cultivator.

Let us encourage and help the homesteader. He deserves it.

Protection for Steel Industry.

THE one fact that, during the fiscal year ending March 31st, 1913, the value of United States metal and machinery products shipped into Canada reached the dizzy total of $146,435,109, justified Hon. Mr. White in giving Canadian iron and steel manufacturers more protection.

It proves beyond contention that the iron and steel industries of the United States were being benefited at the expense of the iron and steel industries of Canada. There could be no lasting advantage to any class in Canada arise from such a condition of affairs.

To throw the iron and steel men to the wolves would ultimately lead to our undoing, for, in the matter of protection, we must "hang together or hang separately."

Moreover, "we" includes not only all manufacurers, but also the industrial workers and farmers, because the iron and steel industries, with all their allied industries, are one of the great measures of a nation's commercial strength. Great Britain, the United States and Germany lead the world in the manufacture of iron and steel, and if Canada hopes to approach their position we must develop these most important industries.

In this connection, the following editorial from *The Iron Age,* the leading iron and steel journal of the United States, will be of interest:—

"What the preferential tariff could not do for British steel makers who coveted the Canadian market and have complained of the lack of loyalty that denied it to them, Canada is now to do for herself as fast as her steel manufacturers can get ready to benefit by the increased duties on iron and steel products. Only actual trade developments will permit of measuring the loss of trade the duties just announced will inflict on American steel manufacturers. Our wire rod exports to Canada, which have been about 60,000 tons in each of the past two years, will be practically all cut off by the new duty of $3.50 a ton, as Canada's wire rod capacity is now ample to take care of the home demand. Wrought pipe shipments from this side will be cut down, particularly in the smaller sizes. It will probably be some time before any impression will be made upon the structural steel trade our mills have had there; but the Canadian duties on these products will be raised as capacity develops there to supply them. Such development is to be expected, as diversification of Canadian steel products will be forced by the decline in rail demand, for the great railroad building programme across the border is nearing the end. Steel making has not yet been profitable to the larger Canadian companies; it will take years for the industry to become seasoned against such competition as may develop from this side, particularly in times of depression here. In the case of the largest Nova Scotia plant there is the steady handicap of distance from Canada's best consuming district, to which American works have easy access.

"So far as concerns the United States Steel Corporation, which does a large part of our steel business with Canada, its disabilities under the increased tariffs will be removed when it builds its own works on the other side of the border. Yet there is some food for thought in the transplanting of industries and payrolls from the United States, now a low-tariff country, open to competition from every quarter, to a country which sees wisdom in so framing its duties that the manufacturers within its borders are assured of their home market."

Three points in the above editorial should be carefully noted: first, little fear is expressed that our new tariff will seriously diminish importations of United States steel and iron for some years, which is an answer to those who contend that Mr. White treated our iron and steel men too well; second, freight differentials owing to distance is still considered by *The Iron Age* a sufficient handicap against the Nova Scotia plants; and, third, that great corporations, such as United States steel, will anticipate the future strength of our Canadian companies by building branch plants in Canada.

Defeat of Mr. Turriff, M.P.

SAFE in the Chamber of the House of Commons, Mr. J. G. Turiff, M.P., misused the privileges accorded his office by attacking the Massey-Harris Company.

There is a type of mind which believes that wealth can be accumulated and success attained only by disreputable means, and never through intelligence and industry.

When such a mind belongs to a man in the street, who spends most of his time cursing the passing automobiles of the rich, it is usually negligible; but when it belongs to a member of Parliament, who attacks a firm's business in the hope of winning votes and cheap applause, the matter is important.

The Massey-Harris Company issued an open letter to Mr. Turriff, denying and refuting his statements. It was a most effective reply, and, while Mr. Turriff is apparently

incapable of being convinced or to make a decent apology, it is gratifying to see the Company break silence and destroy him.

The Error of a Substitute Autocrat.

THE dictatorial methods of certain members of the Ontario Government would be farcical if they were not so serious. With Sir James Whitney at the helm, most people were prepared to stand for a more or less autocratic form of government, for beneath and behind all his brusqueness there was a real desire to be fair and to give the Province the laws it wanted.

Providing the ruler is wise enough and big enough, a mild despotism is one of the best forms of government. Its inherent weakness lies in the uncertainty of the successorship.

Autocracy under Sir James Whitney is one thing; autocracy under Honorable I. B. Lucas is quite another thing. People will endure the one and count themselves fortunate. Will they endure the other? If so, how long?

The rejection of the Bulk Sales Bill is a case in point. This measure was designed to prevent a merchant from selling his stock in bulk and decamping without paying the manufacturers or wholesalers from whom it was bought. The protection of this commendable type of legislation has been enjoyed in a majority of Canadian provinces for years. Its absence from the Statute Books of Ontario is accounted for by the failure of the manufacturers and wholesalers on the one hand, and the retailers on the other, to agree on certain of its features. This year an agreement was reached. A measure in which the Retail Merchants' Association, the Canadian Credit Men's Association, the Canadian Manufacturers Association, and all the leading Boards of Trade concurred, was introduced by Mr. W. D. McPherson. The Attorney-General had made the suggestion the year previous that these bodies should get together and agree upon a bill. Having done so, and reconciled all conflicting interests, it was natural to assume that the Legislature would give effect to their conclusion.

On rising to move the second reading of the bill, Mr. McPherson was interrupted by Honorable I. B. Lucas, who announced himself as unalterably opposed to the principle of the measure, declared that the Government would not allow it to pass, and requested the mover to withdraw it—which, of course, Mr. McPherson did. No reason, no argument, just a plain "You must, because I say so!"

If Mr. Lucas had vouchsafed his reasons, and they had been good reasons, the incident would be without much significance. But apparently the private views of Mr. Lucas are to override the united views of the business men of Ontario, who are to be curtly dismissed without an explanation.

"Bold enough to be honest and honest enough to be bold" was Sir James Whitney's guiding principle. The public stood for it because they knew Sir James. Any one of fewer years and less experience who has aspirations to succeed him should first convince the public of his honesty. The boldness may follow, but there is likely to be trouble if it precedes.

Home Rule and the Hydro.

HONORABLE ADAM BECK, Ontario's Minister of Power, has distinguished himself in a career of useful public service. His efforts on behalf of the people of Ontario have been fruitful of results, and he has earned for himself their lasting gratitude.

The key-note of his success in endeavoring to provide Ontario municipalities with an abundance of cheap power has been that he contented himself with pointing the way. He made liberal provision for Government assistance, but did not stipulate that any municipality developing or contracting for power should take advantage of that assistance. In other words he left each municipality free to manage its own affairs in its own way.

It has now been demonstrated beyond question that a Hydro-Electric system under Government supervision can be operated successfully along these lines. But it has not been demonstrated that the system can be continued in successful operation if those who are parties to the scheme are to be told that they are incompetent to manage their own affairs.

The Toronto Hydro-Electric Commission, with all the facts before them, have decided that an auxiliary steam plant is a necessity of their business undertaking. Honorable Adam Beck says it is not, that its erection would be financial suicide. The Commission, having an eye to future business, wish to be able to show a record of uninterrupted service, knowing full well that until they can produce such a record some of the largest customers for power in Toronto will not accept their connection. Honorable Adam Beck says the service is now in such perfect shape that Toronto is immune from interruption. The Commission state that the necessity of providing an auxiliary steam plant will effectually prevent any reduction in rates this year. Honorable Adam Beck declares that the rates shall come down.

It would be most unfortunate, both for the province and Honorable Adam Beck, if at this stage the whole future of the undertaking were to be imperilled by a policy of dictation for which the people will not stand. If the citizens of Toronto, through their representatives, wish to charge themselves certain rates for power and light, that is their own affair, not Mr. Beck's. The latter may think it good business to cut rates to a point where the Toronto Electric Light Company will be forced out. Such tactics may be permissible in private business, but they should be beneath a Government.

Fight on, Mr. Beck, but fight fair! Lead, but don't attempt to drive!

HOW TO INVEST CAPITAL RELEASED FROM BUSINESS TEMPORARILY DURING TRADE DEPRESSION

By H. M. P. ECKARDT

THE various questions suggested by the heading of this article have been pressing themselves upon the notice of manufacturers, merchants and other business men in all parts of Canada. As yet it can scarcely be said that any large number of manufacturers in the Dominion have been troubled overmuch from pressure of idle money released from business. There were many special loans and other short-date obligations negotiated during the past two or three years, and the cash so far released has been thankfully accepted, in numerous instances, as a means of paying off the swollen debts. However, there are some manufacturers who financed out of current profits such extensions as were made in the recent season of prosperity, and others again contented themselves with working their existing plants without enlargement. The two classes last mentioned have already found their relations with their bankers affected rather importantly by the changed conditions. Their direct loans, if they had any, may have run off, and their lines of discounted paper have been falling to unusually small proportions, and they have begun to consider what will be the best method of employing the funds when the liability at the bank is wiped out and funds still accumulating.

Idle Money Will Increase.

Also it is probably the case that a number of concerns which have enlarged their plants and provided for the same through sale of bonds are in a similar position. Should the dull period last throughout the summer the number of manufacturing companies or individual manufacturers with idle money on their hands will likely increase steadily. It should be said at the outset that the question as to disposition of temporary surpluses would apply only to those manufacturers who possess an ample working capital. In case of others who are short of working capital, decreased activity will perhaps suffice merely to bring their bank lines down to manageable proportions. Then with others it will be the case that the release of capital will enable them to carry on their business perhaps without bank loans or discounts—they might use the banks only for current account purposes and for collecting customers' paper.

There will also be some industries in the case of which the release of capital will not be at all important. Manufacturing staple articles in perpetual demand, these industries are not greatly affected by trade depression. They must buy raw material in the usual quantities and keep about the same number of men on their pay lists; and consequently they are not required to face the problem of investing idle capital.

Undoubtedly the method most in vogue among manufacturers and other business men with cash surpluses to dispose of, is to place the funds in deposit receipts or special deposits at the bankers. This is the least troublesome method of disposing of the funds and it has certain advantages which are not to be despised. The three per cent. rate of return on bank deposits is small in comparison with the rates obtainable on good bonds or debentures; and when a large amount is involved the difference in results would have some importance. On the other hand, providing the manufacturer's account is carried by a strong or sound bank, the money placed on special deposit is available at call, and there is no need for any worry as to stock or bond market conditions or fluctuations.

Another point frequently receives consideration when the question of carrying special deposits with bankers is being decided. If that policy is followed the banker inevitably values the manufacturer's connection more highly; he is more disposed to meet his customer's wishes and quote finest rates on the next occasion in which the customer requires loans or discounts. In short the policy has a tendency to increase the banker's good will, and the good-will thus gained may yield good returns a little later.

Speaking generally the disposition of surplus funds should depend to some extent on the length of time it is expected they will be idle. If the manufacturer has good reason to believe that he will need in his business all or a considerable part of his funds in the course of three, four or five months, it would seem to be hardly worth while to place them in bonds or other securities. For instance, if a sum of $50,000 was available for four months, bank interest at 3 per cent. would amount to $500, as against a little over $900 to be derived from an investment in bonds yielding 5½%. The manufacturers might think it good policy to forego the gain of $400 in interest in order to be assured of additional good will at the bank. He would also bear in mind the possibility that the securities selected by him for investment might at the end of the four months be selling at prices lower than the prices at which they were bought.

If on the other hand the expectation is that the surplus funds will not be required in the business for a year or more, the argument for investing them in good realizable bonds or debentures becomes stronger. In case of an investment of $50,000 in bonds yielding 5½ per cent. the net yield in a year would be $1,250 greater than the bank interest allowed. Whenever temporary investments in bonds are under consideration the matter of the probable selling prices at the time when realization will be necessary must be taken into careful account.

Manufacturer's Money Gone.

As a general rule during the tight money period immediately preceding a trade depression security prices are low and the best bonds and stocks can be purchased to yield very good returns. Then comes relaxation of the money market, perhaps suddenly as in January, 1914, accompanied by a sharp rebound in security prices. Up to this stage the manufacturer probably has no idle funds to invest. He may be still borrowing from the bank. The accumulation of the surplus comes later, and by the time he has it in hand it may be the case that a further important rise has occurred in quotations for securities. The higher the securities market rises the greater will be the inclination of the prudent business man to allow his surplus to remain on deposit in the bank. For, as the quotations rise the net yield on an investment becomes less; there is less to be gained in interest as compared with the bank deposit. And as the quotations rise the risk of loss on reconverting the investment into cash increases. So we see that much depends on the time at which the funds become available. If they are on hand and the investment is made in the earliest stages of the trade depression—while the monetary stringency still lingers or immediately after it has passed away—there is an excellent prospect of selling the bonds or other security at a satisfactory profit when the funds are again needed in the business. If the investment cannot be

made until the next stage there is still a good chance of selling out without loss, though the rate of return on the investment will likely have become less. And finally if the trade depression be well under way and securities are standing at considerably advanced prices when the funds are available, it will perhaps be well for the manufacturer to be prepared for a slight loss on realizing. Such loss might not occur, but it would be wise to be prepared for it.

The next question that arises has to do with the selection of the securities. They should be realizable at once, and not too speculative. For immediate realizability there are few classes of securities that can surpass the active railway stocks traded in the Wall Street market. They can be sold almost at any time in large amounts without seriously affecting the quotations, and the rate of return is satisfactory also. One objection to them from the purely Canadian point of view is that they are foreign securities. Another objection is that the fluctuations are too extensive. If a manufacturer gets into them he may be subject to much worry or excitement and he may have his attention diverted from his business. If the stocks plunged down there would be the prospect of a loss. And if they advanced extensively, netting the investor a very handsome amount, he would perhaps be tempted to repeat the stroke on a later occasion, probably by purchases on margin. Subsequent operations might not be so profitable.

Something more steady-going than the active speculative stocks would therefore seem to be in order. It is said that some of the large corporations are in the habit of lending idle funds, when such accumulate, to stock brokers on collateral through the trust companies. Their money thus appears in the street as private funds. Dominion Government bonds and most of the Provincial Government bonds are issued in London, and in their cases the rate of return is not very high. So probably most manufacturers would not consider them very attractive—it would be possible to get nearly as much interest through leaving the money in the banks. A better return could be secured from municipal debentures. Those issued by the principal cities are most readily realizable, but again the interest rate is low. Debentures issued by the lesser cities and large towns in good standing are realizable quickly enough for the manufacturer's purposes, and a better rate of return is obtainable on them. At the time of writing these can be bought to yield from 5 to 6 per cent. Outside of these are power company bonds and other public service bonds issued by companies in good standing, operating in the large cities. The bonds of public service companies operating in the smaller cities are not, as a rule, so suitable since the market is narrow.

Probably the average manufacturer will have little disposition to use his surplus funds in purchasing Canadian industrial bonds. He would not feel like buying the bonds of any of his competitors for instance, and in case of a number of other industrial bonds the market is not broad—the bond houses have been endeavoring to sell blocks for several months.

As yet there is little to indicate when industry and trade in Canada will again be rushing ahead after the manner of 1911, 1912 and 1913. The spring months always witness some revival of business. A comparatively quiet summer should follow. Then if climatic conditions prove favorable for the 1914 crops there should be an increase of activity as the harvest season approaches. It is within the possibilities, too, that Canada's trade and industrial situation may be favorably affected towards fall by business improvement in the United States. Under the circumstances it is not to be expected that Canadian manufacturers in general have definitely made up their minds that there is to be a protracted period of extreme dullness. Many of them doubtless expect that in the fall they will have use for all available funds. Those holding such views, as mentioned above, will probably be content to allow their funds to remain in possession of the banks. The January bank statement showed $42,000,000 reduction in current account deposits and about $10,500,000 increase in notice deposits. Probably this movement was partly due to the action of manufacturers and merchants with surplus funds transferring round amounts to special interest accounts.

IMPROVEMENT IN STRIKE SITUATION DURING MARCH.

Less Industrial Strife During First Quarter of the Present Year than in 1913.

A continued decrease in time losses through trade disputes was reported to the Department of Labor during March, as compared with the previous months of the year. The number of disputes was also considerably smaller than that of the corresponding month of last year. Seven disputes resulting in time losses of 32,618 working days were in existence during March, as against fifteen disputes and 68,285 working days lost during the same month last year. The first three months of the present year have been very favorable from the standpoint of industrial disputes. Eight new disputes occurred in this period, resulting in time losses of 4,205 days. During the corresponding period last year twenty-one strikes were reported, the time losses resulting from these up to the end of March being 29,246 days. Five hundred and thirty-seven employees have struck work or otherwise been involved in trade disputes during the first three months of 1914. This compares favorably with the corresponding period of 1913, when 4,511 workers were affected by strikes and lockouts.

PRICES STEADY.

The Department of Labor's Index Number of Wholesale Prices rose slightly in March, standing at 136.7 as compared with 136.1 in February and 136.0 in March, 1913. The more important increases occurred in grains and fodder, animals and meats (especially in poultry), canned salmon, apples, beans, potatoes, flour, oatmeal, beef hides and muskrat skins. Important decreases occurred in eggs, jute, brass and lead, and in some grades pine. In retail prices beef, veal, bacon, flour, beans, prunes and potatoes were upward, while there was a general decline in eggs, and butter showed a downward tendency.

SUGGESTED COLLECTION LETTER.

Dear $ir,—

I mu$t a$k you to plea$e excu$e the look$ of thi$ epi$tle, but one of the key$ on my typewriter eem to be mahed.

Am $ending the$e few line$ to remind you of a $mall matter which $hould be $ettled.

Your$ $incerely,

—*McClary's Wireless.*

NEW STEAMSHIP LINE BETWEEN MONTREAL AND ANTWERP.

We have been advised that a new line of steamers has been put on between Montreal and Antwerp by Roth Brothers, of London, England. It is expected that there will be a sailing about every three weeks and that steamers will call at Dundee for cargo on the way out when sufficient inducement offers. Quebec will be a port of discharge for this line.

Rates and other information may be obtained on application to Thomas Harling, Steamship and Freight Broker, Board of Trade Building, Montreal.

PUBLIC OPINION AND THE MANUFACTURER

Views of a Manufacturer Who Gets His Ideas From the Farm

Transcribed by BRITTON B. COOKE in the "Canadian Courier"

THIS is an ex parte statement biased, one-sided, and partisan, quite. Though my motive in writing is not partisan, I freely admit that the material is necessarily so. One can only speak for oneself and from one's own viewpoint; there is only one brain and one tongue by which a man may find expression for his thoughts. As a manufacturer I write from the manufacturer's point of vantage or point of disadvantage, believing what I write to be true and just. Some farmers, reading this article, may repudiate my arguments and condemn my sentiments. It is to be expected. Yet I entertain some hope that between the Free Trader and the Protectionist, there may, at least, be some whose attitude of mind is sufficiently aloof from controversies to enable them to realize a truth in my observations, which the average Canadian might do well to consider.

My business is the making of certain kinds of iron castings used by other manufacturers. I belong to the Canadian Manufacturers Asosciation, and I have always contended, however obscurely, on the side of Protection. I mention these points so that there may be no possible misunderstanding of my position. I was one of the many who voted against the proposed reciprocity agreement. I am almost always to be found, I fear, opposing the Western farmer and his ever-increasing demands upon Canadian legislators. Constitutionally I am a conservative of conservatives. Frankly, I distrust radical proposals on first sight. I am suspicious of changes. In matters of government and public policy I dwell upon the value of caution. While I place great emphasis upon the corrective power of public opinion, I distrust popular opinion. For example, to my mind the Initiative, Referendum and Recall is actively dangerous—from which you will see I can never hope to attain merit in the eyes of the *Grain Growers' Guide*, and must be content with a place in the category of reactionaries.

Knows Whereof He Speaks.

Yet by descent and relationship I am a farmer. In a figurative sense I am still a farmer. For generations my forbears have lived on the land, the last excursion into the realm of ancestry having discovered nothing but an honest yeoman of my name farming a few acres in Kent. My great-grandfather and his father, and his father's father—farmed. My grandfather had a hundred acres in Wellington, and even my father was a farmer until the neighbors laughed him out of it. He was forced to the city for a living, where it was thought we must certainly starve, so hopeless had my father proved as a farmer. Yet we prospered in the town, for my father, by some freak in heredity, turned out to have a natural bent for working in iron. He began as a blacksmith and thrived from the first, until when he was fifty he laid the foundation of the industry which is now mine. The low building where he set up our first furnaces, and where we still turn out the smaller castings, became his "farm" in place of the acres he had been obliged to quit in Wellington. It is part of my "farm" to-day. Each year I invest my capital in my business, just as my father used to invest oat-seed in a ten-acre field. Each year I take off the increase—my crop—if there is any. Like him, I have a sort of natural instinct for "farming" in the foundry business. Like him, I should be all at sea in the management of a piece of good clay loam. Sometimes we get a bad crop, sometimes a "bumper." It depends largely upon the economic weather which Providence may see fit to send or to withhold. It depends, too, now that my father has retired, upon the attention I give the business and my skill, or lack of skill, in handling the problems which arise from day to day. My grandfather, who was a good farmer, occasionally lost a colt; sometimes I lose money on a contract when I have miscalculated my costs. My grandfather, who was an astute judge of weather, sometimes left his hay just one day too long, and had the rain spoil it in a night. I sometimes give a customer too long a line of credit, and thus sustain a loss. In short, we are still a family of farmers, though my uncles deal in seed and soil, and I in other things.

Wider View Needed.

This is a protest; a protest against the agriculturist on the one hand and the city dweller on the other hand. It is a protest against the lack of representative public opinion in Canada, a protest against the unevenness of the pressure which is brought to bear upon our legislators, and the resultant lack of balance in the direction of public policy and in the enactment of legislation. So far the results may not have done any great harm, but the situation is potentially dangerous. There is in Canada scarcely a vestige of real public opinion; its place is usurped by "popular" opinion, or more often by sectional and class opinion. We think in classes and in communities, heterogeneously. Parliament and the various legislatures are prompted accordingly into making concessions to the class or community which appears to control the most votes, patching and mending laws and bribing constituencies with their favorite cake. This is the substance of the protest. The responsibility falls, I claim, upon the farmer, for his overactivity, and upon the city dweller, for his indifference, though of the two, the city dweller is the greater sinner.

The Power of Farmers.

The power behind almost all great social and economic movements in the last two hundred years has been the agriculturist. It was the country places that lent such terrific momentum to the French Revolution. Farmers made early trouble between Germany and Russia over the ratification of trade treaties. Farmers fired the first shots in the War of American Independence, and the great-great-grandsons of those very men, in the Western States, overthrew the then dominant political influences and for a time controlled all legislation in those states. Farmers brought about, indirectly, the reciprocity proposals of 1911. Farmers are the most-considered class in the deliberations of the House of Commons at Ottawa to-day, save only the railroads, whose very existence sometimes seems to depend upon vigilance in the lobbies. It may be shocking to appear to condone the railroad lobbies, yet in a day such as this, when one class of opinion takes the place of a real public opinion and the pressure brought to bear upon Parliament is so one-sided, the great interests are forced to take steps to protect themselves against the lively radicalism to which they are exposed. The railways and other interests would have less to fear and perhaps less to hope for in the lobbies if Parliament were more thoroughly representative, and public opinion, upon which it rests, better balanced.

The farmer gives weight and energy to public movements, but the cities provide other factors; acting now as a counterbalance, now giving edge to the weapon, now directing the stroke, and always providing the other part which should be present in any good national alloy. The cities represent manufacture and the agencies of exchange. No nation reaches its highest aims that grows by agriculture alone or by manu-

facture alone. For without the farms the cities would soon be exhausted of their strength, and without the cities— the homes of manufacture—there would be lacking that variety of outlets for human activity which is essential to the development of the nation. My father was a failure as an agriculturist, but a constructive citizen as an iron-moulder. The city gave him his opportunity. Without the city his abilities would have been wasted. In short, the cities represent one of the two great departments of national life. Town and country are counterparts. Working together they achieve greatness, develop great sons who do great works. When they fail to work together, when the city man becomes selfishly and shortsightedly absorbed in the complexities of his own engagements, and when the farmer in his isolation is left to be led or misled by the first demagogue who knows how to play upon the natural self-interest of the race, evil results for the nation at large. Rural opinion without its counterpart, urban opinion, claims everything for rural interests. Urban opinion sleeps, and the special interests, failing to obtain the natural and normal support which should automatically come to them from the cities, establish special influences at court, influences which are not always wholesome.

Overdrawn Pictures.

It has become the fashion to speak of the heroic agriculturist! How he toils! His isolation! "All wealth comes from the soil!" He is called "Nation-builder" and "empire-maker." It has become the fashion in newspapers and from platforms to flatter the farmer as if he were a child, needing attention. "The Man With the Hoe" has become a sort of fetish with certain newspapers, and his praise is chanted six times a week. Men have sprung into light who make a good living just by telling the Western farmer how badly he is treated, and what he ought to be getting from Parliament and the greedy East! Other men become "leaders" of the farmers, directing their political activities from comfortable offices in Winnipeg and Calgary. It is noteworthy that few of these farmer "leaders" live by farming. It is also noteworthy that there are farmers, especially in the East, who decline this so-called leadership and continue to think for themselves in terms of national welfare.

Yet through constant iteration and reiteration the public has come to accept this representation of the farmer as being correct. It takes argument to show what should otherwise be obvious; that the farmer is only half the nation and farming only half of its ultimate business; and that the cities and the dwellers in the cities are, for all their indifference, quite as essential to the building of the nation. Is no credit due to the man who "farms" with his few hundred or few thousand dollars in some industrial pursuit? Who, living as he does amidst the strenuous competition of city life, is yet willing to place his means in circulation in order that he may build up an industry? The farmer is not the only contributor to the achievements of the State, and yet, which gets most of life? Whose is the healthier occupation? Which has the quiet night's rest? Which has the real opportunity to enjoy living as measured by proper standards? Which has more opportunity for the enjoyment of family life? For the reading of books? For the contemplation of natural objects? Has that man more anxiety who watches the rain clouds hovering over his already-too-well-watered fields, than the other, the city dweller, who sees unfavorable business conditions threatening to cut off his earning power and leave him practically resourceless in a city—the place where a man must pay dollars upon dollars for the mere privilege of keeping alive, whereas the farmer, even at the worst, can maintain himself on comparatively little? Crop failure to the farmer still leaves him with the fields—on which taxes are a mere pittance. Business calamity to the city dweller is likely to leave him stripped of everything, including his credit. The average city dweller handles more money in a year than the average farmer, but at the end of the year he thinks he has done well if he has kept pace with his obligations, whereas the farmer, with his farm still beneath his feet, his larder well stocked at no monetary cost to himself, and many assets unliquidated, worries if he has not at least a few more dollars in the bank now than he had a year ago. There is no bugaboo of "keeping up appearances" to fret the farmer, yet "appearances" are vital to the book-keeper, the salesman and the mechanic. The farmer can live frugally from the products of his own land, whereas the city worker can only obtain the actual requisites of life by the expenditure of his daily wage, and he is practically forced to purchase much that the farmer never troubles to think about.

Where the City Pays.

Who, then, pays most in the form of duty on imported goods? The city dweller—because he is obliged to pay duty even on such common necessities of life as eggs, butter, milk and meat—thus putting money in the farmer's pocket—the while the farmer himself gets his staples of food as mere incidents in the management of the farm. For hats, for shoes, for socks, for ties, for collars, for women's supplies—for scores of articles, the city dweller pays very heavily in duty. The farmer, buying very much less, contributes very much less to the customs revenue.

Take the city man starting up in a small manufacturing business. He must pay 27½ per cent. duty on the machinery and tools he requires. But the farmer buys some of his implements free of duty, some at 15 per cent. duty, and none at more than 20 per cent.; and his machines do not represent the same large sums of money. The manufacturer must pay for raw materials, for labor and for heavy "overhead" expenses. The farmer grows his own seed, or at the worst, pays comparatively little for it. He is continually assisted with Government experiments and other special aids to agriculture, which are provided for out of the public chest, to which, as I have already pointed out, the farmer contributes the smaller portion. His labor costs him less than the city man has to pay for an ordinary mechanic. For a gross return of ten dollars the former must at least set five dollars—more likely nine dollars—in circulation. The farmer places in circulation much less money. The farmer's costs for machinery have dropped between thirty and fifty per cent. in twenty-five years, and that same machinery now saves him two-thirds of the labor which used to be required. He gets increasingly more for his beef, butter, eggs, cheese, milk, vegetables and fruit. And he pays less for his tea and sugar. The net profits of farming have risen, while the city dweller finds it increasingly difficult to meet the high cost of living. And who have the largest savings accounts? The farmers.

There is no ground for complaint in this. All one can ask is that these facts be recognized and that the city dweller take a new view of things and manifest a greater interest in public affairs. What the farmer earns let him keep. Let him continue to raise his earnest voice in public discussion, but let him not speak alone. For this one-sidedness must eventually react upon the whole community. Politicians know a thousand ways to handle elections in city constituencies, but the farmer-voter has to be pacified at almost any cost—a cost usually expressed in terms of tariff reduction affecting only those commodities which farmers have to buy. Social conditions, franchises, Imperial politics and various other questions serve to split up the attention of what small part of the urban population is pleased to interest itself in political matters. But the tariff is the farmers' piece de resistance. It never wears out, though it sometimes threatens to do so. The results are obvious; public opinion, being replaced by sectional opinion, legislators estimate the strength of that sec-

tion and yield to its demands accordingly. Legislation is likely to reflect the jerkiness of ill-balanced and unrepresentative opinion, and the long-suffering tariff is in perpetual torture.

Well planned, carefully adjusted tariff revision is one thing; hasty adjustments and readjustments are quite another matter, and are the almost inevitable result of the position in which Parliament is from time to time placed. An agitation sweeps the West—which, like any new community, is easily fired—and the West moves upon Ottawa with some new or renewed demand. Ottawa estimates, with a shrewd eye, the next election and the standing of the parties, and makes a peace offering—usually a slice off the duty on agricultural implements. In short, the result is "tariff tinkering" to appease still further the one section of the nation which really feels the tariff less than any other.

THE COST OF STRIKES.

It seems that among the 1,236,150 factory workers in New York State, 13,519, or a little over one per cent., are between the ages of fourteen and sixteen. This is a long way from the total of 2,000,000 half-naked little girls and wholly naked babies represented by the child labor fakirs as working in the factories of the whole country.—*How.*

DEATH OF WILLIAM DEWART.

William Dewart, a gifted writer on tariff subjects, died in Montclair, N.J., on March 30th.

Mr. Dewart was one of the strongest advocates of the National Policy and his articles, published in 1874 in the *Canadian Illustrated News*, did much to establish it in Canada. These articles were circulated in booklet form by the Manufacturers Association of Ontario and were republished in 1912 and 1913 in Industrial Canada. His death removes one of the founders of Canadian industrial prosperity.

VISIT TO NEW HOWARD SMITH MILLS.

The Howard Smith Paper Mills, Limited, recently entertained a number of shareholders, printers and stationers to an inspection of their new mills at Beauharnois.

The guests were shown through the mill, starting at the rag-room, where the raw stock comes in and is sorted and handled, and were surprised to know that the rags were remarkably clean—the company only using new cuttings, as for the grades of paper manufactured by them, used or soiled rags do not give the requisite strength and color.

There were a number of prominent Montrealers in the excursion, besides the officers of the company. Among those present were: Mr. J. Pangman, Alfred Pollack, Gain Corniel, E. F. Slack, A. M. Russel, W. D'Oyley Hutchins, A. F. Read, J. R. Paradis, Edm. Sawyer, J. R. Constantineau, H. Desjardins, L'Archevesque & Labrie, Gustav Francq, Victor Tardiffe, Gareau & Sauriol, L. N. Veilleux, Jas. Renwick, Gibson Brown, E. Daoust, W. J. Gray, R. Knott, M. MacIntosh, F. J. Twilley, Percy Scott, F. Hoerner, R. Fortier, H. J. Bowie, H. E. Hinds, R. James, H. DeV. Townsend, J. Lowry, J. Joseffo, Walter Lovell, Geo. Ecroyd, Milton Yale, R. Bell, D. Keddie.

Among the visitors was also Mr. McNaughton, Manager of Robert Craig & Sons, Ltd., Airdrie, Scotland, manufacturers of paper, who expressed a delight that Canada had such a fine mill, in fact, he considered it the finest mill he had ever seen, and on some parts asked for information, which was cheerfully given, so that he could make alterations in his own plant in Scotland.

NEW MANUFACTURING COMPANIES.

The following companies have been recently incorporated in Canada for manufacturing purposes:

Saint Armand Canning, Ltd., Saint Armand, Que...	$49,000
Cedar Rapids Transmission Co., Ltd., Montreal, Que.	200,000
British Columbia Fishing and Packing Co., Ltd., Vancouver, B.C.	5,000,000
Direct Provisions, Ltd., Montreal, Que.	500,000
Athabasca Petroleum Co., Ltd., Vancouver, B.C.	500,000
Pure Food Supply Co., Ltd., Montreal, Que.	100,000
Rotary Amalgamators, Ltd., Toronto, Ont.	40,000
Canadian Niagara Linens, Ltd., Niagara Falls, Ont.	300,000
Flax Towels, Ltd., Gravenhurst, Ont.	100,000
The Port Stanley Mfg. Co., Ltd., Port Stanley, Ont..	40,000
Henderson Specialty Mfg. Co., Ltd., Montreal, Que..	20,000
La Compagnie Industrielle, Lacroix de Contrecoeur Limitee, Contrecoeur, Que.	49,000
The Upton Electric Co., Ltd., Upton, Que.	99,000
Page & Shaw (Canada), Limited, Montreal, Que....	100,000
Lynch & Bruneau, Ltd., Village of l'Epiphanie, Que.	50,000
Pierson U Bar Co., Toronto, Ont.	40,000
Dominion Lock Co., Ltd., Toronto, Ont.	100,000
The Brantford Computing Scale Co., Ltd., Brantford, Ont.	150,000
The Mining Corporation of Canada, Ltd., Toronto, Ont.	2,075,000
Kilkenny Safety Appliance Co., Ltd. Victoria, B.C.	150,000
Vancouver Cedar Mills, Ltd., Vancouver, B.C.	750,000
Vancouver Cannery, Ltd., Vancouver, B.C.	100,000

DEATH OF HENRY COOK.

In the death of Herman Henry Cook, which occurred on April 12th, at his late residence, 20 Dowling Avenue, Toronto, Canada loses one of its most conspicuous figures.

Born in Williamsburg, Dundas County, Ont., on April 27, 1837, Mr. Cook entered the lumber business in 1858 and was at the time of his death president of the Ontario Lumber Company. He was one of the syndicate which offered to build the Canadian Pacific Railway in 1880. His family has been prominently identified with the lumber trade for many years.

WHERE HIS TIME GOES.

A merry life is that of the commercial traveller if the expense and statistical account of one of them is a guide to the daily life of the craft, says *Comfort Chat.* According to the account appended, all work and no play will never make Drummer Jack a dull boy. Here is the statement:

Travelled	2896 miles
Carried samples	400 lbs.
Showed samples	341 times
Sold goods	178 times
Have been asked the news	5621 times
Have told the news	1930 times
Have lied about it	2111 times
Didn't know	1635 times
Been asked to take a drink	1904 times
Have taken a drink	1903 times
Refused to take drink (account sickness)	1 time
Changed politics	47 times
Flirted	987 times
Charged firm expense per day	$7 62
Actual expense per day	4 91
Net profit per day	2 75
Cash on hand	0 00

TRANSPORTATION

By J. E. WALSH

A SUBSTANTIAL reduction of freight rates in Western Canada was made by the Dominion Railway Board, on April 7th, in its judgment, deciding the Western Rates case. The new rates go into effect on September 1st, 1914.

The judgment outlines a comprehensive basis of tolls and a complete rate structure for all railways in Western Canada subject to its jurisdiction.

Divides the West Into Sections.

The territory west of the Great Lakes is divided into three sections. The first is called the Prairie Section, extending from the Great Lakes to the Mountains; the second the Pacific Section, including mainland rail lines in British Columbia; and the third, the British Columbia Lakes Section, including the inland navigable waters in that Province.

A standard scale of maximum freight rates is fixed for each section. The lowest scale in the West, now known as the Manitoba standard, has been amplified to show rates up to two thousand one hundred miles, and will apply throughout the entire Prairie section and on the British Columbia Lakes, abolishing the higher scale now charged in Saskatchewan and Alberta. What will be known as the Pacific scale is on a somewhat higher basis and will govern in Pacific territory. These changes result in substantial reductions from the present standard maximum scales in Saskatchewan, Alberta and British Columbia.

Establishment of Distributing Centres.

Special distributing tariffs on a lower basis are authorized from recognized distributing centres, the reduction from the standard tariff of each territory being fifteen per cent. of the prairie standard scale. The following first-class rate examples indicate the character of the reductions, the other classes being proportionately scaled. The first-class rate from Winnipeg to Regina is reduced by eight cents, to Swift Current by nine, Calgary twelve, Revelstoke fifteen, Saskatoon thirteen, Edmonton sixteen, Lethbridge ten cents per hundred pounds. From Regina the first-class rate is reduced to Broadview by three, to Swift Current six, Medicine Hat seven, Colonsay thirteen, Saskatoon six, and Wilkie eighteen cents per hundred pounds. From Saskatoon the first-class is reduced to Hardisty by seven, Wynyard four, Davidson four cents per one hundred pounds. From Calgary to Regina ten, MacLeod three, Edmonton four, Lethbridge three, Cardston four, Fernie eight cents per hundred pounds. From Edmonton to Saskatoon four, Camrose six, Wetaskiwin six, Calgary four, High River seven, Lethbridge nine cents per hundred pounds. Similar reductions are made from other Prairie jobbing centres. From Vancouver to Ashcroft fourteen cents, Kamloops twenty, Revelstoke twenty-six, Nelson fifteen, Calgary seven cents per hundred pounds.

Basis of Through Rate.

Through rates from Eastern to Western Canada are based on those charged from Port Arthur or Fort William. After citing reductions already made by order of the Board in the Regina Rate Case, further reductions are made and a more uniform basis adopted. Examples of the new rates from the Lake terminals are given below, those to other points being similarly scaled:—

Classes	1	2	3	4	5	6	10
Regina—							
Old	154	129	102	77	68	59	34
New	146	122	98	73	65	56	33
Moose Jaw—							
Old	159	132	106	79	71	61	36
New	153	128	102	77	69	60	35
Calgary and Edmonton—							
Old	224	186	149	112	102	90	52
New	213	178	142	106	95	85	49
Saskatoon—							
Old	175	146	116	87	78	68	40
New	164	137	110	82	74	64	37
Lethbridge—							
Old	215	179	142	107	96	85	49
New	201	167	133	100	90	79	46
Nelson and Revelstoke—							
Old	303	253	202	158	140	133	73
New	251	209	167	126	115	104	61

Grain and Flour Rates Reduced.

Local grain and flour rates are substantially reduced by two methods, first by a direct reduction ranging from twenty to thirty per cent., and secondly by making the terminal Fort William rates the maximum that may be charged between intermediate stations. For example, Broadview to Winnipeg, now twenty, becomes fifteen cents per hundred pounds; and Calgary to Winnipeg, now forty-three cents, through the application of the Fort William rate as maximum, becomes twenty-four cents per hundred pounds. The westbound rates on flour and other grain products are similarly reduced. This is an endorsation of the complaint of the United Farmers of Alberta, and the application of the Winnipeg Board of Trade. The United Farmers of Alberta also win out in their application for reduced rates on these products to British Columbia stations.

Large Reductions on Coal.

Coal rates from Lethbridge and other Alberta mines are substantially cut; for example, from Lethbridge to Calgary from $1.80 per ton to $1.45, to Edmonton from $2.85 to $2.20, Swift Current $2.40 to $1.90, Regina $3.10 to $2.65, Virden $4.10 to $3.40, Saskatoon $3.95 to $3.30 per ton. From the Souris mines reductions made by the board in the Alameda case are confirmed and others made. Thus, from Estevan to Brandon from $1.70 to $1.40, to Carberry from $1.90 to $1.50, Emerson $2.30 to $2.00, Rapid City from $2.00 to $1.60, Swift Current $2.15 to $1.70, Colonsay $2.40 to $1.80, Saskatoon $2.60 to $2.10, Yorkton $2.80 to $2.20 per ton. From Merritt,

B.C., to Yale, from $1.80 to $1.65, to Kamloops from $2.00 to $1.75, to Sicamous from $2.50 to $2.20, to Penticton from $3.30 to $2.90, to Nelson from $4.10 to $3.65 per ton.

Carload sugar rates from Raymond, Alta., to prairie points also receive attention, Lethbridge being reduced from eleven to nine cents, Cranbrook 42 to 38 cents, Nelson 60 to 51 cents, Calgary 31 to 23 cents, Edmonton 42 to 37 cents, Regina 50 to 42 cents per 100 lbs.

Should Lower Cost of Living.

The special mileage rates on butter, cheese and eggs, dressed meats and dressed poultry between all prairie points come in for reductions.

The special mileage tariffs on vegetables in Manitoba are shown to be reasonable; the rates, however, in Saskatchewan and Alberta, which are on a somewhat higher scale, are reduced to the Manitoba basis.

The special rates on fruits and vegetables from British Columbia, which have been revised and reduced since the complaint against them was launched by the United Farmers of Alberta, are left untouched.

The rates on cement from Winnipeg are shown to vary little from those of Ontario, and are not reduced, but the higher rates from cement plants in Alberta and Saskatchewan are reduced to the Winnipeg scale.

Lumber and joiners work from British Columbia to prairie destinations have been already reduced following the Board's order in July, 1913. A table showing some of the reductions accompanies the judgment.

The rates on sugar from Vancouver remain unchanged, the complaint of the British Columbia Sugar Refinery not being sustained.

No reduction is made in livestock rates, which are shown to be reasonable in view of the favorable carload minimum weights and the volume of traffic.

Help For Building Trades.

The rates on fence posts, firewood, brick, stone, gravel and sand are found to be generally lower than those applying in Ontario; but the higher scales prevailing in Alberta and Saskatchewan are reduced to the lower Manitoba basis.

Rates on ores, concentrates, and smelter products, in and from British Columbia are found to constitute a large percentage of the traffic of that Province, and are found remunerative only in the sense of contributing to the general prosperity.

The rate on pig iron from Port Arthur and Fort William to Winnipeg is reduced from twenty cents per hundred pounds to three dollars per gross ton, or 13.4 cents per 100 lbs.

A review of the judgment shows that the whole structure of western rates, starting from the standard maximum mileage scale, the class tariffs from Lake Superior and Pacific Coast terminals, the class distributing rates, commodity tariffs applying on grain, coal, livestock, cement, fruit, vegetables, brick, sandstone, lumber, dairy products, etc., have been closely inspected and definite decisions given in connection with each.

The Board has considered the question of local passenger rates in British Columbia very carefully. It finds that the local passenger business is at present being conducted at a loss. It, therefore, does not feel justified in directing any changes until the Board is afforded an opportunity of seeing what improvement in passenger revenues will result from the improvements in railway grades and operating facilities which the railway is at present making.

COMMODITY RATES.

Probably one of the most important features of the judgment in the enquiry into freight rates west of Port Arthur is that which deals with commodity rates. The judgment says:

"A general request has been made that commodity rates should be granted for certain manufactured articles and their raw materials in Western Canada. There is no reason why they should not be granted as and when a proper case is made out requiring special treatment for special commodities. The question was dealt with entirely at large except as to pig iron. The complainants did not seem to desire at the present time to obtain (and in this I think they were well advised) anything more than a statement that the commodity principle should be extended to the West."

Further—

"The request for commodity rates now advanced is with the view to the establishment of manufacturing industries. These should be granted on proper case being made out."

Up to the present time commodity rates on raw materials for manufacturing purposes have been limited. As an illustration, pig iron has always been charged the regular tenth class rate, Fort William and Port Arthur to Winnipeg. The Canadian Manufacturers Association argued, when filing application for a commodity rate (which the Board granted) that this article was carried at commodity rates everywhere else it moved in any quantity in North America.

FRANCE AND PUBLIC OWNERSHIP OF RAILWAYS.

France is evidently having its fill of national ownership and operation of railways. During the year 1913, the loss in operation amounted to no less than $16,600,000, while the sum of $44,000,000 was spent in extraordinary expenses. This resulted from the 5,500 miles embraced in the two systems owned by the State, namely, the Old and the Western systems. The losses during the past few years were as follows:

1909	$ 7,500,000
1910	11,200,000
1911	13,300,000
1912	14,600,000
1913	16,600,000
Total loss from operations in five years	$63,200,000

In addition to the above losses, which had to be provided out of the pocket of the State, large sums were expended on extraordinary appropriations for betterment, these latter being as follows:

	1909-12.	1913.	Totals.
Old State Railway	$18,200,000	$ 8,400,000	$ 26,600,000
Western Railway	76,600,000	35,400,000	112,000,000
Totals	$94,800,000	$43,800,000	$138,600,000

If to the extraordinary expenditure on betterment be added the deficit from operations, shown above, a total outlay by the State of $201,800,000 is found. This sum, of itself, is not a killing affair, particularly as the loss was largely shifted over upon the future generations by issuing bonds. These bonds, however, bear very low interest rates, being about 4 per cent., so that the money was cheap as things now are. What would appear to be more serious is the trend of the earnings, these revealing a growing deficit from year to year. In fact, from $7,500,000, in 1909, the annual deficit from operations increased gradually till in 1913 it amounted to $16,600,000, being then twice as great as at the beginning of the period.—*Saturday Night.*

INSVRANCE

By WILLIS, FABER & CO., LTD.

THE recent decision of the Superintendent of Insurance to cancel the license of the Rimouski Fire Insurance Company has not occasioned much surprise in insurance circles This Company had been in difficulties for a considerable period and had earned an unenviable reputation for their lack of promptness in settling claims. The Company is now in liquidation and all holders of "Rimouski" policies should immediately replace the insurance elsewhere.

An amusing circular letter was recently sent to policy-holders of the Ontario Fire Insurance Company, whose license was suspended some months ago by the Ontario Insurance Department. The letter was signed by the Assistant Manager, and urged policy-holders to send in their policies for cancellation. A pathetic little footnote was appended, in which the writer begged assured not to blame him if they suffered a loss and found that they could not collect their claim. Possibly the letter was written with the object of relieving the Company of its liabilities, while only refunding returns on a short period instead of on a pro rata basis.

Exhaustive tests have been carried out by the National Fire Prevention Association as to the most efficient means of extinguishing fires occurring in dip tanks containing paint or other inflammable liquids. Hitherto sand has been almost universally considered to be the best extinguisher, but these tests have proved conclusively that for this purpose sawdust is vastly superior. Where sand merely makes a hole in the fire, afterwards sinking to the bottom of the tank and allowing the flames to close up again, sawdust spreads over the surface of the liquid and, although it may itself smoulder, smothers the original flames. The formula adopted is one bushel of sawdust mixed with ten pounds of commercial carbonate of soda. The experiments were conducted with hardwood and softwood sawdust, and both were found equally good.

In a proposed "Act to Amend the Insurance Act 1910," which has passed the first reading, the Dominion Government has drafted a number of regulations which should aid materially in safeguarding the interests of policy-holders in companies operating under Dominion charters. One section provides that "No such Company shall invest in the shares of any other Company transacting, or authorized to transact, any class of insurance business which such Company transacts or is authorized to transact." Companies already holding such shares will be given ten years in which to dispose of them. There is more than one company in Canada which will be affected by this clause.

A new section is inserted which provides that after the 1st of January, 1920, if it appears to the Superintendent that the capital stock of any Canadian fire insurance company is impaired to the extent of 25 per cent. it may be called upon to make good within three months the amount of such impairment and that, failing so to do, the Minister may withdraw the license. In our opinion this is not sufficiently drastic, and does not come into operation soon enough. A company whose capital is impaired to any extent should immediately be made the object of strict enquiry.

In one of a series of articles written for the *Monetary Times*, Mr. J. Grove Smith produces startling evidence that a large percentage of fires in Canada is due to incendiarism. He publishes a chart showing the relationship between insurance losses and mercantile failures during the past twelve years. Excluding claims arising from the Toronto conflagration in 1904, the curves representing the liabilities of bankrupt and the insurance losses are almost parallel. Mr. Smith very reasonably assumes that something more than mere coincidence must be responsible for such synchronous fluctuation through a period of that extent. The coincidence of the curves is especially noticeable during periods when trade depressions have affected the whole country.

That the United States are no better off in this respect is shown by a recent statement made by the Fire Commissioner of New York, announcing the appointment of a special committee on Fire Insurance and Arson. He estimates that at least 25 per cent. of New York's fire loss is due to arson, while others put the figures still higher. The special committee will suggest reforms in the method of issuing fire insurance policies. One suggestion, which has already been adopted, is to fix responsibility more closely upon the broker who issues policies to improper persons. Hereafter these brokers will be summoned by the fire marshal in all cases of suspicious fires and will be made to disclose just what knowledge they had of the insured before issuing a policy. Where the evidence justifies it, application will be made to the State Insurance Department to cancel the license of the broker.

TIMELY SUGGESTIONS FOR FIRE PREVENTION.

With all the precautions in the world, however, fires cannot be entirely eliminated. To fight them successfully there should be in every factory or workroom a thorough organization of a sufficient number of the employees into a fire-fighting force. They should be drilled regularly and thoroughly; they should be trained to use the appliances, and to see that these are always in working order. This is done in a way in some establishments now, but in most cases the drills are only play, and time after time the force goes to pieces at the time of need.

And there should be drills of the remaining employees, the great majority, in getting out of the building in safety, and in the shortest time posible. Shortly after the fire in the Asch building where there were no fire drills and where 143 girls were killed, a blaze broke out in a similar factory on Fourteenth street, where the employees had been trained, and 400 girls escaped out into the street in two minutes. If they hadn't got out in quick time they would have been burned, for the fire broke out into a quick one.

Automatic sprinklers and automatic alarms should be installed to last limit of precaution. There is no case where the old adage, "An ounce of precaution is worth a pound of cure," is as true as with fire. We have been stingy with our ounces, and it is costing us dear in pounds. The doors should open outwardly and be fastened only in such a manner that they will yield instantly to slight pressure. The windows should be unobstructed and the fire escapes should lead to safety instead of into a trap. These are the changes that could be brought about without any revolution in most establishments, and they would be sufficient. It is the lack of them that is responsible for most of our fires.—*Edward F. Croker, in "World's Work."*

TARIFF

By J. R. K. BRISTOL

THE following are the tariff resolutions introduced into the House of Commons on April 6th by the Hon. W. T. White, Minister of Finance. A provision affecting the date of enforcement of these changes, which should be carefully noted, reads:

"Provided, notwithstanding any increase in Customs duties under the said Resolutions, that all goods actually purchased on or before the sixth day of April, 1914, for importation into Canada, on evidence satisfactory to the Minister of Customs of the purchase having been so made, and all goods in warehouse in Canada on such day, if entered for duty after importation prior to the first day of July, 1914, may be entered at the rate of duty in force on the said sixth day of April, 1914."

Further details and explanations will be furnished by the Tariff Department on application.

1. Resolved, That it is expedient to provide, in substitution for Section 7 of The Customs Tariff, 1907:—

(a) That goods the product or manufacture of any foreign country which treats imports from Canada less favorably than those from other countries may be made subject by Order in Council in the case of goods already dutiable to a surtax not exceeding twenty per centum ad valorem, and in the case of goods not dutiable to a rate of duty not exceeding twenty per centum ad valorem

(b) That goods the product or manufacture of any foreign country imported into Canada in vessels registered in such foreign country may, if such foreign country imposes higher duties of customs upon goods imported into such country in vessels registered in Canada than upon the like goods when imported in vessels of such country, be made subject by Order in Council in the case of goods already dutiable to a surtax not exceeding twenty per centum ad valorem, and in case of goods not dutiable to a rate of duty not exceeding twenty per centum ad valorem.

2. Resolved, That The Customs Tariff, 1907, be amended by authorizing the Governor in Council when satisfied that rolled iron or steel angles, beams, channels and other rolled shapes or sections, of iron or steel weighing one hundred and twenty pounds and less per lineal yard are manufactured in substantial quantities in Canada from steel made in Canada to direct that there be substituted for tariff item 379 in Schedule A to The Customs Tariff, 1907, the following:—

Tariff Items.		British Preferential Tariff.	Intermediate Tariff.	General Tariff.
		$ cts.	$ cts.	$ cts.
379	Rolled iron or steel angles, beams, channels, and other rolled shapes or sections, of iron or steel, not punched, drilled or further manufactured than rolled, weighing over one hundred and twenty pounds per lineal yard, n.o.p. not being square, flat, oval or round shapes, and not being railway bars or rails, per ton.....	2 00	3 00	3 00

3. Resolved, That Schedule A to The Customs Tariff, 1907, as amended by Chapter 15 of the Acts of 1913, and by Orders in Council be further amended by striking thereout tariff items:—113, 184, 208, 210a, 296, 306, 315, 361, 375, 398, 404, 410, 411, 445, 446a, 460, 471, 486, 542, 543, 545, 546, 575, 577, sections (a) and (d) of the Orders in Council dated 11th August, 1908, designated as items 717 and 720 of The Customs Tariff, the several enumerations of goods respectively, and the several rates of duties of Customs, if any, set opposite each of said items, and to provide that the following items, enumerations and rates of duties be inserted in said Schedule A:—

39c	Cassava flour, when imported by manufacturers of explosives, for use exclusively in the manufacture of such articles in their own factories.....	Free	Free.	Free.
79a	Rooted carnation cuttings in their first year of introduction.....	Free	Free.	Free.
99a	Dried or evaporated bananas.....per pound	Free	½ cent.	½ cent.
113	Cocoanut, desiccated, sweetened or not .....per pound	3 cents.	4 cents.	4 cents.
157a	Amyl alcohol or refined fusel oil, when imported by the Department of Inland Revenue or by a person licensed by the Minister of Inland Revenue, to be denatured for use in the manufacture of metal varnishes or lacquers, to be entered at ports prescribed by regulations of the Ministers of Customs and Inland Revenue, subject to the Inland Revenue Act and to the regulations of the Department of Inland Revenue	Free	Free.	Free.
178a	Provided that on the goods specified in item 178 and imported by mail on and after first day of July, 1914, duties may be paid by Customs Revenue stamps, under regulations by the Minister of Customs, at the rates specified in said item, except that on each separate package weighing not more than one ounce the duty shall be....each	1 cent.	1 cent.	1 cent.
184	Newspapers, and quarterly, monthly and semi-monthly magazines, and weekly literary papers, unbound; tailors,' milliners' and mantle-makers' fashion plates when imported in single copies in sheet form with magazines or periodical trade journals.....	Free	Free.	Free.
188a	Decalcomania paper not printed when imported by manufacturers of decalcomania transfers to be used in their own factories in the manufacture of decalcomania transfers.	Free	Free.	Free.
208	Boracic acid and borax in packages of not less than twenty-five pounds weight; hydro-fluosilicic acid; oxalic acid; tannic acid; ammonia, sulphate of; sal ammoniac and nitrate of ammonia; cyanide of potassium; cyanide of sodium and cyanogen bromide for reducing metals in mining operations; antimony salts, viz.: tartar emetic, chlorine and lactate (antimonine); arsenous oxide; oxide of cobalt; oxide of tin; bichloride of tin; tin crystals; oxide of copper; precipitate of copper, crude; sulphate of copper (blue vitriol); verdigris or subacetate of copper, dry; sulphate of iron (copperas); sulphate of zinc; chloride of zinc; sulphur and brimstone, crude or in roll or flour; cream of tartar, in crystals or argols; tartaric acid crystals; iodine, crude; bromine; phosphorus; sulphide of arsenic; carbon bisulphide.....	Free	Free.	Free.
208a	Chloride of lime and hypochlorite of lime:— 1. When in packages of not less than twenty-five pounds weight each...per one hundred pounds	10 cents.	15 cents.	15 cents.
	2. When in packages of less than twenty-five pounds weight each	17½ p.c.	25 p.c.	25 p.c.
210a	Caustic soda:— 1. When in packages of not less than twenty-five pounds weight each .....per pound	1-5 cent.	3-10 cent.	3-10 cent.
	2. When in packages of less than twenty-five pounds weight each	17½ p.c.	25 p.c.	25 p.c.
278a	Peanut oil for manufacturing soap or for canning fish; soya bean oil for manufacturing soap.....	Free	Free.	Free.
296	Flint, ground flint stones; felspar, fluorspar, magnesite; mica schist; cliff, chalk, china or Cornwall stone, ground or unground, refuse stone, not sawn, hammered or chiselled nor fit for flagstone, building stone or paving.....	Free	Free.	Free.
306	Marble, sawn or sand rubbed, not polished; granite, sawn; paving blocks of stone; flagstone and building stone, other than marble or granite, sawn on not more than two sides.....	15 p.c.	20 p.c.	20 p.c.
306a	Building stone, other than marble or granite, sawn on more than two sides but not sawn on more than	10 cents.	15 cents.	15 cents.

Tariff Items.		British Preferential Tariff.	Intermediate Tariff.	General Tariff.
	four sides, per hundred pounds..			
306b	Building stone, other than marble or granite, planed, turned, cut or further manufactured than sawn on four sides, per one hundred pounds.....	30 cents.	45 cents.	45 cents.
315	Carbons over six inches in circumference or outside measurement and not exceeding thirty-five inches in circumference or outside measurement	Free	Free.	Free.
315a	Carbon electrodes exceeding thirty-five inches in circumference or outside measurement	12½ p.c.	20 p.c.	20 p.c.
327a	Silvered lenses for automobile lamps.....	10 p.c.	15 p.c.	15 p.c.
353a	Aluminum leaf or foil.....	Free	Free.	Free.
361	Gold and silver leaf; Dutch or schlag metal leaf; brocade and bronze powders	15 p.c.	27½ p.c.	27½ p.c.
375	Iron in pigs, iron kentledge, and cast scrap iron; ferrosilicon containing not more than fifteen per cent. silicon; ferromanganese and spiegeleisen, containing not more than fifteen per cent. manganese per ton.....	1 50	2 50	2 50
375a	Ferrosilicon containing more than fifteen per cent silicon, per ton.	3 00	4 50	4 50
375b	Ferromanganese and speigeleisen, containing more than fifteen per cent manganese	Free	Free.	Free.
378a	Galvanized rolled hoop iron or hoop steel, numbers twelve and thirteen gauge ..... per ton	$4.25	$7.00	$7.00
398	Wrought or seamless iron or steel tubing, plain or galvanized, threaded and coupled or not, over four inches in diameter but not exceeding ten inches in diameter, n.o.p.	20 p.c.	30 p.c.	30 p.c.
398a	Wrought or seamless iron or steel tubing, plain or galvanized, threaded and coupled or not, over ten inches in diameter, n.o.p.	10 p.c.	15 p.c.	15 p.c.
404	Galvanized iron or steel wire, curved or not, numbers nine, twelve and thirteen gauge with variations from such gauges not exceeding four one-thousandths of an inch, and not for use in telegraph or telephone lines.....	Free	Free.	Free.
410	Coil chain, coil chain links including repair links, and chain shackles, of iron or steel, one and one-eighth of an inch in diameter and over	Free.	5 p.c.	5 p.c.
410a	Coil chain, coil chain links, including repair links, and chain shackles, of iron or steel, n.o.p..	15 p.c.	20 p.c.	20 p.c.
411	Malleable sprocket chain, and link belting chain of steel, when imported by manufacturers of agricultural implements for use in the manufacture of such implements in their own factories.	Free	Free.	Free.
445	Mowing machines, harvesters, self-binding or without binders, binding attachments, reapers, and complete parts thereof, not including shafting or malleable iron castings, also finished parts for repairs of the machines specified in this item.....	12½ p.c.	12½ p.c.	12½ p.c.
445a	Malleable iron castings when imported by manufacturers for use exclusively in their own factories in the manufacture of mowing machines, harvesters, binding attachments and reapers	15 p.c.	17½ p.c.	17½ p.c.
446a	Traction ditching machines (not being ploughs) adapted for tile drainage on farms, valued by retail at not more than three thousand dollars each, and complete parts thereof for repairs.	Free	Free.	Free.
453a	Electric dental engines	15 p.c.	27½ p.c.	27½ p.c.
460	Sundry articles of metal as follows, when for use exclusively in mining or metallurgical operations, viz.:—Diamond drills, not including the motive power; coal cutting machines, except percussion coal cutters, coal augers and rotary coal drills; coal heading machines; core drills, miners' safety lamps and parts thereof, also accessories for cleaning, filling and testing such lamps, electric or magnetic machines for separating or concentrating iron ores; furnaces for the smelting of copper, zinc and nickel ores; converting apparatus for metallurgical processes in metals, copper plates, plated or not; machinery for extraction of precious metals by the chlorination or cyanide processes; amalgam safes; automatic ore samplers; automatic feeders; retorts; mercury pumps; pyrometers, bullion furnaces; amalgam cleaners; blast furnaces; blowing engines; and integral parts of all machinery mentioned in this item	Free	Free.	Free.
471	Rolled round wire rods in the coil, of iron or steel not over three-eighths of an inch in diameter, when imported by wire manufacturers for use in making wire in the coil in their own factories ..... per ton	$2 25	$3 50	$3 50
471a	Rolled round rods in the coil, of iron or steel, whether annealed or cleaned, or not, when imported by manufacturers of chain for use only in their own factories in the manufacture of chain ..... per ton	$2 25	$3 50	$3 50
478a	Iron or steel bands, strips or sheets, number fourteen gauge or thinner, coated, polished, or not, and rolled iron or steel sections, not being ordinary square, flat or round bars, when imported by manufacturers of saddlery hardware and hames for use exclusively in the manufacture of such articles in their own factories..	Free	Free.	Free.
486	Iron tubing, brass covered, not over three inches in diameter, and brass trimmings, not polished, lacquered or otherwise manufactured, when imported by manufacturers of iron or brass bedsteads for use exclusively in the manufacture of such articles in their own factories.....	Free	Free.	Free.
494a	Cork slabs, boards, planks and tiles produced from cork waste or granulated or ground cork.....	20 p.c.	30 p.c.	30 p.c.
533a	Garnetted wool waste in the white when imported by manufacturers of woolen goods for use exclusively in their own factories...	Free	Free.	Free.
542	Jute or hemp yarn, plain, dyed or colored, when imported by manufacturers for use exclusively in their own factories for weaving purposes, or for insulating wire, or for the manufacture of hammocks and twines.....	Free	Free.	Free.
543	Linen yarn when imported by manufacturers of towels, damask, or seamless linen fire hose duck, for use exclusively in the manufacture of such articles in their own factories.....	Free	Free.	Free.
545	Jute and jute butts, jute cloth or jute canvas, as taken from the loom, not colored, cropped, mangled, pressed, calendered, nor finished in any way.....	Free	Free.	Free.
546	Jute cloth or jute canvas, uncolored, not further finished than cropped, bleached, mangled or calendered.	7½ p.c.	10 p.c.	10 p.c.
548a	Twine or yarn of paper. when imported by manufacturers of furniture for use only in their own factories in the manufacture of furniture	Free	Free	Free.
575	Embroideries, n.o.p., lace, n.o.p. braids, n.o.p., tapes of cotton or linen not over one and one-quarter inches in width, not including measuring tape lines, fringes, n.o.p., cords, elastic, round or flat, garter elastic, tassels, handkerchiefs of all kinds, lace collars and all manufactures of lace, nets and nettings of cotton, linen, silk or other material n.o.p., shams and curtains, when made up, trimmed or untrimmed, corsets of all kinds, linen or cotton clothing, n.o.p.....	25 p.c.	32½ p.c.	35 p.c.
577	Silk in the gum or spun silk, when imported by manufacturers of silk thread, silk underwear, or of woven labels, for use exclusively in the manufacture of such articles in their own factories..	Free	Free.	Free.
651a	Buttons of vegetable ivory per gross and.....	5 cents. 20 p.c.	5 cents. 30 p.c.	5 cents. 30 p.c.
671a	Metal tips, studs and eyes adapted for the manufacture of corset clasps and corset wires	Free	Free.	Free.
692a	Articles presented from abroad in recognition of the saving of human life, under regulations by the Minister of Customs.....	Free	Free.	Free.

4. Resolved, That Schedule B to The Customs Tariff, 1907, be amended by striking thereout tariff items: 1017 and 1019, the several enumerations of goods respectively, and the several rates of drawback of Customs duties set opposite each of the said items, and to provide that the following items, enumerations, and rates of drawback of Customs duties be inserted in said Schedule B:—

Item No.	Goods.	When subject to Drawback.	Portion of Duty (not including special duty or dumping duty) payable as Drawback.
1,017	Lapwelded tubing of iron or steel, not less than four inches in diameter, threaded and coupled or not	When used in casing water, oil and natural gas wells, or for the transmission of natural gas under high pressure from gas wells to points of distribution	50 per cent.
1,019	Bituminous coal	When imported by proprietors of coke ovens and converted at their coke ovens into coke for use in the smelting of metals from ores and in the melting of metals	99 per cent.
1,021	Rolled round wire rods in the coil, of iron or steel, not over three-eighths of an inch in diameter.	When used in the manufacture of galvanized iron or steel wire, curved or not, numbers nine, twelve and thirteen gauge, with variations from such gauges not exceeding four one-thousands of an inch	99 per cent.
1,022	Charcoal	When used for the smelting of metals from ores	99 per cent.
1,023	Rolled hexagon iron or steel bars	When used in the manufacture of cold drawn or cold rolled iron or steel bars, or turned and polished shafting	99 per cent.
1,024	Yarns composed in chief value of wool, single, numbers thirty and finer, on mule cops, tubes or cones, or in hanks, dry spun on the French or Belgium systems, in white only, not doubled or twisted.	When used in the manufacture of socks and stockings	99 per cent.

5. Resolved, That Schedule C (Prohibited goods) to The Customs Tariff, 1907, shall be amended by adding the following:—

1212. Aigrettes, egret plumes, or so called osprey plumes, and the feathers, quills, heads, wings, tails, skins or parts of skins of wild birds either raw or manufactured; but this provision shall not come into effect until 1st January, 1915, and shall not apply to:

(a) the feathers or plumes of ostriches;
(b) the plumage of the English pheasant and the Indian peacock;
(c) the plumage of wild birds ordinarily used as articles of diet;
(d) the plumage of birds imported alive, nor to—
(e) Specimens imported under regulations of the Minister of Customs for any natural history or other museum or for educational purposes.

6. Resolved, That the foregoing provisions shall be held to have come into force on the seventh day of April, 1914, and to have applied to all goods imported or taken out of warehouse for consumption on and after that day, and to have also applied to goods previously imported for which no entry for consumption was made before that day, except as otherwise provided in the foregoing Resolutions:

Provided, notwithstanding any increase in Customs Duties under the said Resolutions, that all goods actually purchased on or before the sixth day of April, 1914, for importation into Canada, on evidence satisfactory to the Minister of Customs of the purchase having been so made, and all goods in warehouse in Canada on such day, if entered for duty after importation prior to the first day of July, 1914, may be entered at the rate of duty in force on the said sixth day of April, 1914.

New Zealand.

It was the intention of the New Zealand Government to revise the Tariff during the session just terminated; but such action has been postponed. It appears now that the New Zealand Tariff will be revised next year.

There is a predisposition to buy British rather than foreign goods, and an attractive opening for many lines of Canadian products. The Canadian Trade Commissioner at Auckland, New Zealand, earnestly advises that in cases where the Canadian manufacturer does not send a direct representative to visit New Zealand it would be well to co-operate with his office in the appointment of agents.

OPPORTUNITIES FOR EXPORTERS.

R. G. Dun and Company are issuing a series of commercial monographs, which are intended to give briefly the principal facts regarding some of the near-by export markets for Canadian manufacturers. These can be secured free of charge upon direct application to R. G. Dun and Company, Toronto.

OPPORTUNITY FOR TRADE WITH FRANCE.

We have received from the British Chamber of Commerce in Paris (Canadian Section) some copies of a very interesting pamphlet which explains how Canadian manufacturers and merchants may cultivate trade with France.

The Secretary will be pleased to forward a copy of the pamphlet upon application.

He is requested by the British Chamber of Commerce to state that the Chairman of its Canadian Section will reply to any kind of enquiry connected with French trade.

Letters should be addressed to The Chairman of the Canadian Section, British Chamber of Commerce, 9 Rue des Pyramides, Paris, France.

The British Chamber of Commerce was founded in 1872, is entirely composed of British subjects, and has the largest possible facilities at its disposal for the furtherance of Canadian trade in France.

NO MORE WHITE PHOSPHORUS MATCHES.

After January 1, 1916, the manufacture, importation and sale of white phosphorus matches will be prohibited in Canada. The Government bill enacting this prohibition into law was passed by the Dominion House on March 17th.

DEFINING THE CYCLECAR.

The fog that has obscured the exact meaning of the word cyclecar, as applied to that type of vehicle which is neither motorcycle nor fullsized automobile, is in a fair way to being dissipated. Ever since the cyclecar first appeared, the question of its proper classification with regard to other vehicles has been a moot one. Now, however, the Cyclecar Manufacturers' Association, but recently formed and representative of the majority of American manufacturers, has set its stamp of approval upon a specific definition; places vehicles other than full sized automobiles and motorcycles in three distinct classes, the first class including cyclecars, the second class slightly larger vehicles which are arbitrarily styled light cars, and the third class still larger vehicles which are to be known as small cars. According to the definition, a cyclecar is a vehicle having one engine of not more than 70 cubic inches piston displacement, the vehicle to weigh less than 750 pounds. A light car is described as a vehicle having one engine of from 70 to 100 cubic inches piston displacement and weighing between 750 and 950 pounds; and a small car is a vehicle having an engine with between 100 and 175 cubic inches piston displacement and weighing between 950 and 1,150 pounds. There are no other restrictions or limitations. Doubtless, the definition of these vehicles, which all heretofore have gone under the generic term cyclecar, will serve at least to slow the flood of inquiries with which the automobile industry and all connected with it have been inundated.—*Scientific American.*

PARLIAMENTARY

By F. W. WEGENAST

A BILL has been introduced in the Nova Scotia Legislature to appoint a Commission of three or four members to inquire into the subject of workmen's compensation. It is satisfactory to note that, while the bill is evidently based in form upon that under which the Commissioner for the Province of Ontario was appointed, the Nova Scotians do not propose to repeat the unsatisfactory experiment of Ontario with a single Commissioner.

In the New Brunswick Legislature amendments are being brought in to the workmen's compensation law by way of increasing the individual liability of the employer. If the results of the investigation in Ontario had been, as they might easily have been, a state system which could be held out to the other provinces as a model, an immense amount of expense and waste might have been obviated in the other provinces of Canada as well as in Ontario. Circumstances, largely accidental, have served to fasten upon the Province of Ontario a system which, however well intentioned, is bound to be a source of embarrassment and humiliation to the province. The other provinces, if they are to avoid a similar experience, will have to undertake from the beginning a task which if it had been well performed in Ontario would have sufficed for all the provinces.

A provincial "Labor Commission" in British Columbia has reported in favor of a system of compulsory state insurance against accidents to workmen to be administered by a Workmen's Compensation Board. The reflection of the work in Ontario has also been felt in Quebec and Manitoba, in each of which provinces Acts exist of the type which were advocated by those who spoke for the labor interests when the Ontario investigation commenced. The Canadian Manufacturers Association will probably not again be called upon in any province to assume the burden which was thrust upon it during the Ontario investigation of advocating in the face of suspicion and hostility what is now admitted with very little hesitation to be the only proper mode of dealing with industrial accidents.

The case of Swale v. C.P.R. recently decided by the Court of Appeal for Ontario is of some importance on the question of the obligations of carriers and the effectiveness of the conditions on the bill of lading to relieve the company from liability, particularly for goods held in storage. Some goods which the plaintiff had shipped by the defendant company having been in the company's possession for a long time were handed over by the company to third parties, auctioneers, to be sold to pay the company's charges. The auctioneers sold a part of the goods, which, according to their statement, realized less than the amount of the charges. Some of the goods were delivered by the auctioneers to the plaintiff. The plaintiff alleged improper accounting and conversion, and claimed from the company a proper account of the goods sold and the value of the goods converted, or damages for the conversion.

It was held that the company was not relieved from liability by exceptions in the bill of lading. The consignee was bound to take the goods away within twenty-four hours after arrival, and her refusal or neglect to receive the goods put an end to the transit. The purpose of the bill of lading is satisfied when the transit is complete, except as to any rights of lien, or absolution from claims not promptly made. The conditions do not apply after the carriage is accomplished and the carrier has become a warehouseman or involuntary bailee, with the right to realize under sections 345 and 346 of the Railway Act of Canada, R.S.C. 1906, chap. 37.

It was held also that the Company after the transit being in the position of an involuntary bailee, its obligation was to take reasonable care and to deliver the goods when the consignee came for them. Employing a responsible agent was not negligence; but inability to hand over the proceeds and unsold goods was the breach of a statutory duty, only to be excused by such circumstances as would absolve the agent; and the question was not whether there was conversion by the company, but whether the company was liable for the acts of its agents if those acts amounted to such negligence as would make liable a bailee, such as the company was, or would constitute conversion. "Owner's risk" in the circumstances implied the same responsibility as that of an involuntary bailee.

In the decision of the International Harvester Co. v. Maxwell in the Supreme Court of Alberta the principle was reaffirmed that what are ordinarily known as lien notes are not promissory notes within the meaning of the Bills of Exchange Act, and are not negotiable paper. They are merely agreements in the form of a note and may be assigned like other agreements but do not carry with them incidents of bills of exchange.



Can he Protect the Treaty and our National Honor?

—*American Industries.*



Stereopticon Display at the Gary Works of the United States Steel Co.

VISITING OF DISTRICT NURSES IN FACTORIES

A NUMBER of the manufacturing companies of the United States are employing district or visiting nurses. Usually they are under the direction of the local company physician, or plant manager, although in some cases they are under the City Visiting Nurse Association. Their duties are to visit homes of employees, especially where there is sickness and the family would be benefited by the assistance or instructions of a trained nurse; to render such aid as will add to the comfort and welfare of the families; and to instruct and direct in the care and feeding of infants. These nurses explain the proper preparation of all food and advise in the matter of economical purchasing; discourage anything and everything that does not tend to produce good morals, and teach the value and necessity of cleanliness and the benefits of fresh air and sunshine.

At the South Works of the Illinois Steel Company, for example, where the nurse employed is a member of the Visiting Nurse Association, there has been organized among the superintendents and foremen a "Good Fellow Club" to work in co-operation with the nurse. The members of the club contribute fifty cents per month (or any amount greater or smaller which they may care to contribute) to a fund to be drawn upon immediately by the nurse for relieving such distress as requires instant attention, temporarily, and until more permanent relief can be provided through the regular avenues, involving the delay attendant upon regular procedure. The nurse uses this fund as she deems wise. It may be for the purchase of a bed, or necessary food and cooking utensils, or a special diet for a sick person, clothing for the children, etc.



Visiting Nurses Instructing Employees in Sanitary Work.

During the summer this "Good Fellow Club" maintained a small playground on some vacant lots in a congested neighborhood, near the mill. A woman was in constant attendance, and the nurse made several visits a day. In this playground the little children could be watched and cared for, and it was the general opinion that many cases of illness among the children had been prevented.

During the twelve year period, 1901-12, wage earners in Canada suffered a loss from strikes of approximately nine million days, which, valued at the low rate of $2.50 per day would amount to nearly twenty-three million dollars.



An Employee's Child and the Company's Nurse.

GLASSES FOR PROTECTING THE EYES IN INDUSTRIAL PROCESSES.

By M. Luckiesh, before the Illuminating Engineering Society.

While it has been quite well established that there is little or no danger to eyesight from ultra-violet radiation when illuminants are properly used for ordinary purposes of illumination, occasions do arise in the industries where it is necessary to protect the eyes from ultra-violet rays and excessive amounts of radiant energy. This protection is accomplished by means of glasses which do not transmit the ultra-violet energy and which also reduce the retinal image to a safe brightness. Colorless or neutral glasses are to be preferred, but no glasses of this character have been found to be wholly satisfactory. As a general solution of the problem of eye protection it is proposed that a yellow-green glass totally absorbing ultra-violet be combined with a shade of smoke glass of such density as to reduce the brightness of the retinal image to a safe degree. Spectrograms of the light from a quartz mercury arc and from an iron arc have been made through many samples of glass. For many cases the spectrograms provide sufficient data for analyzing the absorbing property of the glass. A brief account of experience with goggles and glasses in the industries is given. The paper is not intended as an exhaustive treatise on the subject, but data presented indicate the limitations and advantages of many common glasses and furnish information which has been collected for some time past.

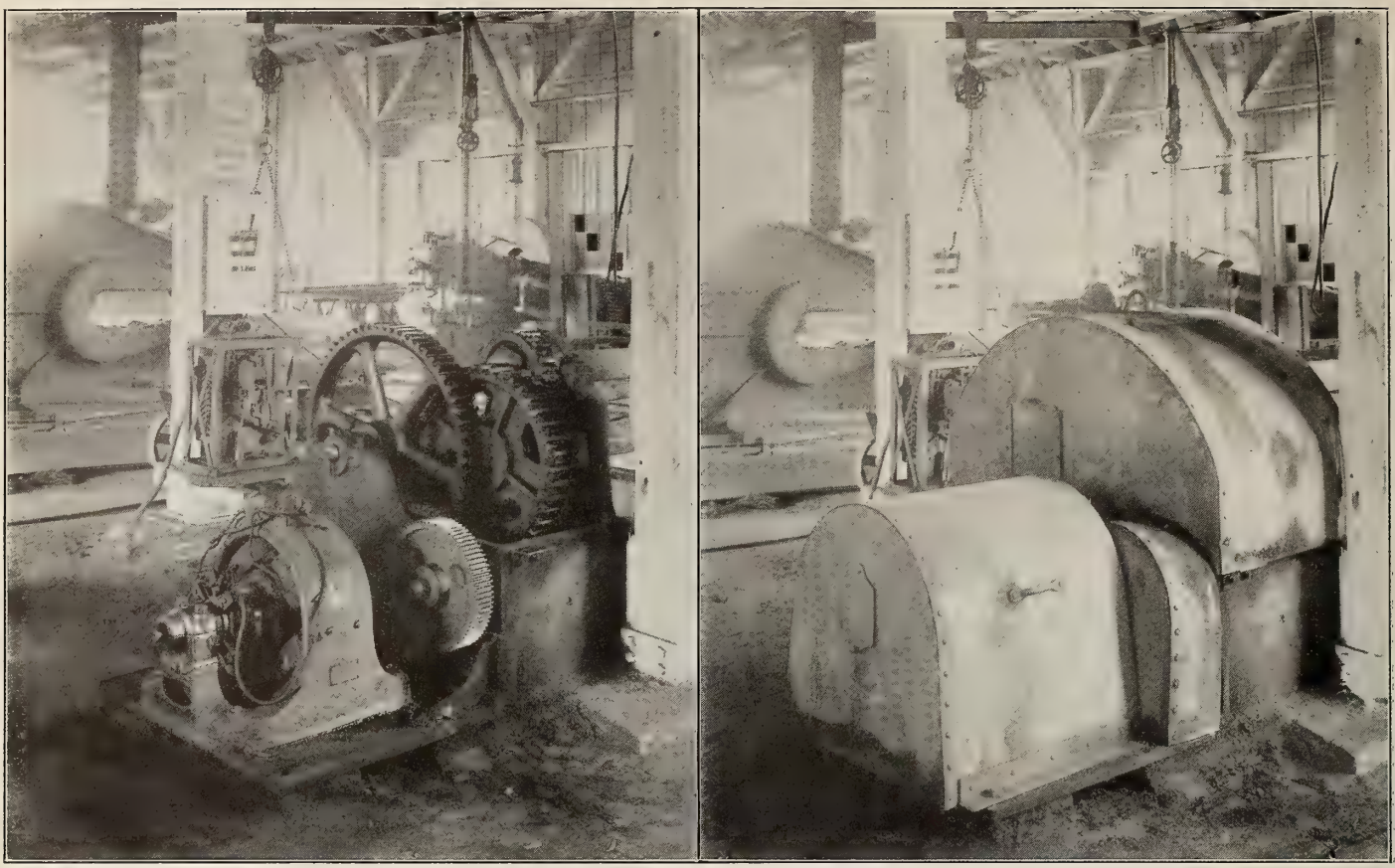


District Nurse Showing Wife of Foreign Employee How to Care for her Infant.

The citizens of St. John are congratulating themselves upon the success of the commission plan of government, which St. John was the first city in Canada to adopt. After a two years' trial, with civic affairs administrated by five commissioners, each the head of a department, devoting all his time to the city's business, the results show a decided improvement over the old irresponsible system with a Mayor and Board of Aldermen, most of the latter being elected to represent different wards and several elected at large. The city's treasury department has just issued its annual statement, which shows that there was a considerable unexpected balance in every department at the end of the year, the whole amount totalling $105,000, of which amount $50,000 was devoted to the relief of this year's assessment, $25,000 to retire some bonds, $18,000 to improve the water distribution service and the balance for other public purposes.



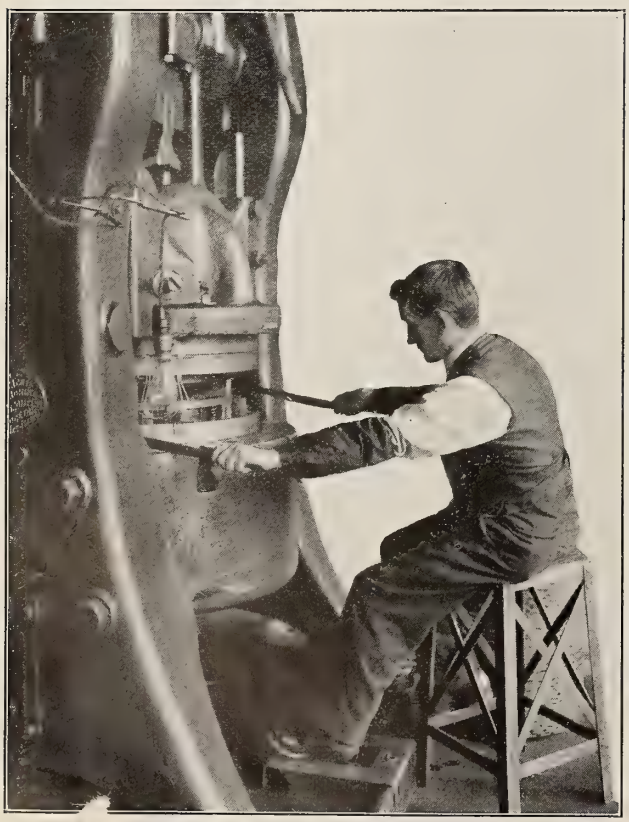
District Nurse Dressing Injured Foot of Employee's Child



Rotary Shears Before and After Protecting

SAFETY SUCTION DEVICES FOR PUNCH PRESSES.

The suction device illustrated herewith was developed with the idea of preventing the necessity of the operator approaching the danger point at any time during the operation, as he feeds and clears the press with the same tool.



Safety Device In a Punch Press

Another advantageous point is that the operator does not take hold of the material with his hands (this applies principally to the smaller sizes) and thereby escapes the numerous small cuts to which he was subjected when inserting the blanks with his fingers.

Before adopting this method a man was placed at the back of the press to feed in the sheets and he was the man who most frequently was injured because his fingers were entirely at the mercy of the operator.

BIG DREDGE LAUNCHED.

A large dipper dredge, 100 feet long, 40 feet wide, 10 feet deep at the bow and 8 feet deep at the stern, was launched in April by M. Beatty and Sons, Limited, Welland, Ontario.

The dredge was built for the C. S. Boone Dredging and Construction Company, and was ready for towing early in May.

The dipper is of 5 cubic yards capacity; the dipper handle is 61 feet long, which will allow it to make 40 feet of water. The engine for handling the stern anchor is 9 x 9, compound geared. Located on each side of the deck forward is a 7 x 7 double cylinder, triple drum engine, which is used for warping the dump scows into position.

CATALOGUES AND BOOKLETS RECEIVED.

Asbestos Mfg. Co.—"The Town of Asbestoslate."

Herbert Morris Crane & Hoist Co.—"Travelling Spur-Gear Chain Block."

USE THE HYDRO ENGINEERING SERVICE, IT'S FREE!

YOU'LL never really know just how much money Hydro power can save you until you go a step beyond the wondering and guessing stage.

Remember, too, Mr. "Chief," it isn't likely that your own people will do this investigating quite as well, quite as impartially, as you will yourself. It's *your* money that's being spent.

It's easy to have the Hydro Engineers do it for you. At a word from you we send qualified engineers to look over your power plant and your power requirements.

We report at length, we recommend Hydro or we do not, according as the circumstances dictate. In any event, the report is in *your* hands—you can act on it or not as you please.

No obligation. Just a chance to learn just what there is in Hydro *for you*. We're ready to-day.

Toronto Hydro-Electric System

226 YONGE PHONE ADELAIDE 2120

THE DOMINIONS' ROYAL COMMISSION

Important International Body will Visit Canada this Year. Manufacturers will be asked to Co-operate by Giving Information and Evidence

IN view of the fact that the above Commission (of which Hon. Geo. E. Foster is a member as representing Canada) will visit our country this year, starting in at Sydney in August, and proceeding thence to the Pacific Coast, it is important to know something about the purposes of the Commission, and the nature of its enquiry.

In an official document distributed by the Department of Trade and Commerce, Ottawa, its purposes are described in the following words:—

"Enquiring into and reporting upon the natural resources of the Dominions of the Empire, the development of such resources, the facilities which exist or may be created for the production, manufacture and distribution of articles of commerce in the Dominions; the requirements of each such Dominion and of the United Kingdom in the matter of food and raw materials and the available sources of the same; the trade of each Dominion with the others, with the United Kingdom and with the rest of the world; the effect upon the mutual trade of the several parts of the Empire of the laws now in force, other than fiscal laws, and how such trade may be improved and extended."

The Commission has already taken evidence in Australia, New Zealand, and London (England). After completing Canada it will presumably visit India and South Africa. Printed copies of the evidence and of the first and second interim reports are on file in the Association offices, but are not available for general distribution.

Electric Steel Castings

OUR Welland Plant will be ready to furnish Carbon, Manganese, Alloy Steel Castings and Forging Ingots, by the end of May, made by the Electric Furnace process.

This Process makes a dependable high grade Steel and Steel Castings, a tough, homogeneous material, free from blow-holes, and having a remarkable resistance to fatigue. Write us for prices and particulars.

THE ELECTRIC STEEL & METALS COMPANY, LTD.
Welland, Ontario



Stern view of the Launching of the W. Grant Morden at Port Arthur, on April 4th

LAUNCHING OF WORLD'S LONGEST FREIGHTER.

The freighter "W. Grant Morden," of the Canada Steamship Lines, Limited, Montreal, was launched from the dry-dock of the Western Dry-Dock and Shipbuilding Co., Port Arthur, on April 6th. The launching ceremony was performed by Lady Williams-Taylor, wife of Sir Frederick Williams-Taylor, General Manager of the Bank of Montreal, Montreal. This leviathan freighter, said to be the largest bulk freighter in the world, has been entirely built at the Port Arthur plant.

The following are the dimensions of the boat: Length, 625 feet; capacity, gross tons, 12,000; 585,000 bushels of wheat, 600.000 bushels of oats; number of crew, 31; number of hatches, 38; tons of steel in construction, 4,500; men employed on construction of boat, 400; keel laid, Oct. 15th, 1913; launched, April 4th, 1914; cost, $500,000; number of rivets used, approximately 1,000,000.

During 1913, 100 New
Factories were Erected in

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There is Room for 1,000 More

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Three Miles of Dock
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Niagara Power at "Beside the River" Prices

The Toronto Harbor Commissioners
Alex. C. Lewis, Secretary
50 BAY STREET - TORONTO, CANADA

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of April, 1914.

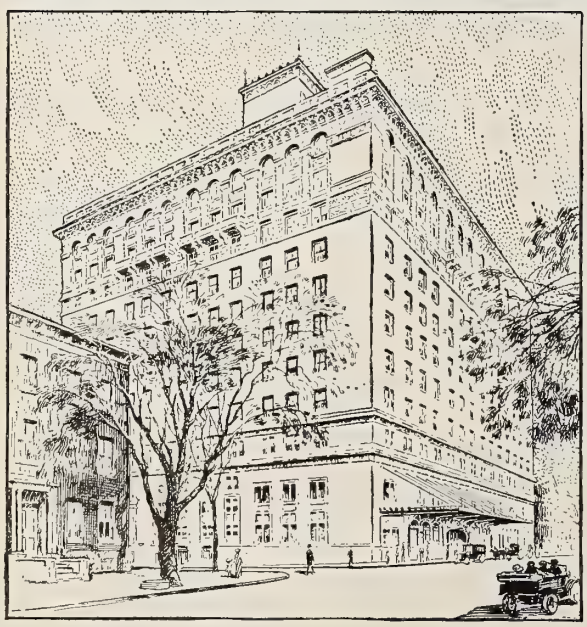
(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload

Grand Trunk Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 19 E 2865	Sup. 19 C.Y. 31	Mch. 28-14	Castings Hamilton to Sault Ste. Marie, Ont.
Sup. 8 F 2497	Sup. 8 B 22	Apr. 25-14	Class rates G.T. stations and connecting lines to points in U.S.
Sup. 13 E 578	Sup. 13 V. 1	Apr. 27-14	Class and commodity rates, stations on G. T. Ry. and connecting lines to points in Western States.
Sup. 13 E 2783	Sup. 13 C.I. 146	Mch. 31-14	Pig iron c.l. Hamilton to Bridgewater, U.S. $5.24 per gross ton.
Sup. 29 E 32	Sup. 29 G.A. 7	May 4-14	Class and commodity rates G.T. stations to points on Wabash R. R. in the U.S.
Sup. 37 E 176	Sup. 37 G.A. 10	May 4-14	Class rates G.T. stations and connecting lines to points in U.S.
Sup. 9 E 2681	Sup. 9 I 140	Apr. 28-14	Import merchandise from Montreal Harbor to points on G.T. Ry. and connecting lines.
Sup. 2 E 2740	Sup. 2 I 145	Apr. 28-14	Import merchandise from Quebec wharf to points on G. T. Ry. and connecting lines.

Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 19 E 2529	Sup. 19 E 2133	Apr. 20-14	Commodities stations on C.P.R. to points in U.S.
Sup. 49 E 2559	Sup. 49 E 2166	Mch. 30-14	Building material between C.P. stations.
Sup. 8 E 1553	Sup. 8 E 1138	Apr. 27-14	Class rates from C.P. stations and connecting lines to points on M. St. P. and S.S.M. and D.S.C. and A. Railways.



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SHERBROOKE STREET, MONTREAL

offers the Comfort, Service and Cuisine of the famous Ritz chain of Hotels and Restaurants round the world, at similar rates to those of other leading hotels in Canada.

3

GENERAL FOREMAN WANTED.

Man familiar with foundry, machine-shop and boiler-shop work. State age, experience and salary expected. Address Box 1, "Industrial Canada," Toronto.



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Chicago Bridge & Iron Works

Bridgeburg, Ontario

ELEVATED STEEL TANKS AND STANDPIPES

For Municipal, Railroad and Factory Service

We also build Oil Tanks, Coaling Stations, Bridges, Turntables, Buildings and Structural Material. Write for illustrated Calalogue No. 25.

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Greenville, Pa. (Pittsburg District)
Chicago, Illinois

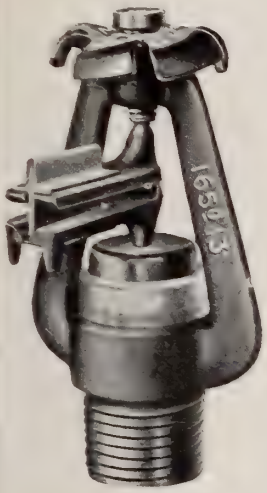
TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

19. **Breakfast Foods.**—Inquiry is made by a South African firm with headquarters in Queenstown, for quotations on Canadian breakfast foods.
20. **Brushware.**—A South African importer asks for catalogues and prices on Canadian-made brushware.
21. **Ceilings, Metallic.**—A South African firm of importers wish to communicate with Canadian manufacturers and exporters of metallic ceilings.
22. **Milk, Condensed.**—Inquiry is made by a South African firm for quotations and samples of Canadian condensed milk.
23. **Machinery, Dairy.**—A South African importing house asks for catalogues and f.o.b. prices on Canadian dairy machinery.
24. **Implements, Dairy.**—Catalogues and f.o.b. prices are requested by a South African importing house.
25. **Fencing Material.**—A South African firm with headquarters in Queenstown requests correspondence on Canadian fencing material.
26. **Flour.**—Samples and f.o.b. prices are asked for by a South African importing house.
27. **Furniture.**—Catalogues and prices are requested by a South African firm.
28. **Handles.**—Catalogues and prices are requested on all kinds of Canadian-made handles, by a South African firm.

IF YOUR PLANT BURNED DOWN

Insurance wouldn't fill your prevailing orders or prevent unemployment and consequent disintegration of a valuable work force.



A disastrous fire is liable to occur at any time if your plant is not sprinkler protected.

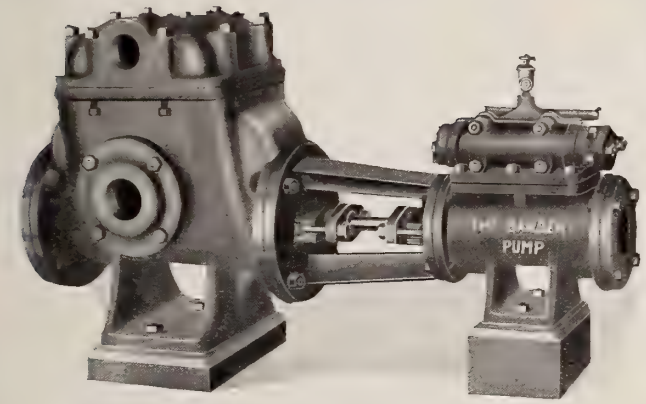
Manufacturers' Automatic Sprinklers

catch the small blazes and soon extinguish them. Their efficiency and reliability is recognized by Insurance Companies which give practically an 80 per cent. reduction in insurance rates.

Manufacturers' Automatic Sprinklers can be easily installed in the new or old plant, and they will pay for themselves in five years with savings effected.

LET US QUOTE YOU ON YOUR PLANT NOW!

The General Fire Equipment Co., Limited
72 Queen St. East, Toronto, Canada



5 x 7 x 10 Vacuum Pump

Bawden Pumps

Double Acting, Single Stroke

QUALITY AND SERVICE

OPERATED—By THE BAWDEN PATENT STEAM MOVED PISTON VALVE, which cannot short stroke or tie up, and never needs adjusting for any speed or pressure.

WORKMANSHIP—All faces are machined and every part manufactured strictly to gauge and therefore interchangeable.

WATER VALVES—Have heavy seats driven in on special taper and held solid with brass stoppers through covers.

TEST—Every pump undergoes a rigid test under its own steam before leaving our factory.

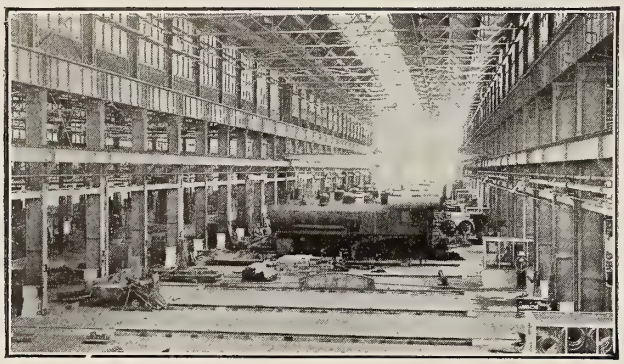
DESIGN—All pumps are designed to give the engineer easy access to all working parts.

AGENTS:

H. L. Peiler & Co., 380 St. James St., Montreal **Robinson & Seager, McDougall Ave., Edmonton, Alta.**
Rock and Power Machy. Co., Limited, Toronto. Branches: King Edward Hotel, Toronto, Cobalt, Porcupine, Sudbury Winnipeg, Vancouver, Montreal, Halifax

BAWDEN MACHINE CO., Limited, 133 Sterling Road
TORONTO, CANADA

2,000 TONS OF J-M MASTIC FLOORING ON ONE JOB



Canadian Pacific Railway, Main Locomotive Shop, Calgary, Alberta, Canada, J-M Mastic Flooring Applied

WHEN one of the largest railroads uses 2,000 tons of one particular brand of flooring—that flooring must be pretty nearly right.

That's the kind of an order we received from the Canadian Pacific Railway shops at Calgary, Canada. J-M Mastic was used.

BECAUSE

It is practically indestructible.

It will outwear any other type of floor.

It doesn't crack, split, run, shove or wear into holes.

It is all-mineral, having natural asphalt for its base.

Its resiliency reduces noise to a minimum and makes it easy on the feet.

Its "holding" properties prevent slipping.

It is absolutely sanitary--does not originate or hold dust. And being waterproof, is easily cleaned by flushing.

Our engineers will gladly offer flooring suggestions for industrial buildings, railroad shops, terminals, etc.

We are also in position to not only supply but also to apply materials for waterproofing bridges, abutments, or any other structure it may be necessary to waterproof.

Write Nearest Branch for Booklet

THE CANADIAN H. W. JOHNS-MANVILLE COMPANY, LTD.

Manufacturers of Asbestos Roofings, Pipe Coverings, Packings, Mastic Flooring, Conduit, Stack Lining, Fireproof Paint, Fire Extinguishers, Fuses, etc.

TORONTO MONTREAL ASBESTOS WINNIPEG VANCOUVER

29. **Hardware, Household.**—Correspondence is solicited by a South African firm, with headquarters in Queenstown, on Canadian-made household hardware.

30. **Machinery, Agricultural.**—A South African importing house makes inquiry for catalogues and prices on Canadian agricultural implements.

31. **Implements, Agricultural.**—A South African importing house makes inquiry for catalogues and prices on Canadian agricultural implements.

32. **Washing Machines.**—Inquiry is made by a South African importing house for catalogues and prices on Canadian-made washing machines.

33. **Paints.**—A South African importing house makes inquiry for samples and prices on Canadian-made paints.

34. **Paper, Wrapping.**—Samples and prices are asked for by a South African importer.

35. **Woodenware.**—A South African firm asks for catalogues and prices on all kinds of Canadian woodenware.

36. **Stepladders.**—A South African importer asks for catalogues and prices on Canadian-made stepladders.

37. **Railway Ties.**—A broker in Paris desires to obtain from Canadian merchants quotations for railway ties to be used for French Systems on one hand and for Spanish Systems on the other. Oak ties are asked for, but it is possible that offers of ties of Red Spruce and Tamarack would be received if samples can be furnished. Prices should be quoted c.i.f. French or Spanish ports. Dimensions for ties of French type (in metres or centimetres): length 2.60; width 0.21; thickness 0.15. Spanish type: length 2.80; width 0.28; thickness 0.14.

$50,000 WORTH OF

MORRIS CHAIN BLOCKS

ALWAYS IN STOCK

THE HERBERT MORRIS CRANE & HOIST COMPANY, Limited.

EMPRESS WORKS, PETER STREET, TORONTO.

INDUSTRIAL CANADA

ISSUED BY

The CANADIAN MANUFACTURERS ASSOCIATION.

INCORPORATED.

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Who Voted With Mr. Beck?

THE recent peremptory order issued by the Ontario Hydro Electric Commission to the Toronto Hydro-Electric Commission, instructing the latter to reduce the rates charged to its customers by ten per cent., creates an intolerable situation, which not only threatens the principle of local self-government but also endangers the commercial future of the Hydro-Electric enterprise in Ontario. The people of Ontario, and especially of Toronto, are entitled to know the circumstances surrounding its composition and deliverance. While the Provincial Commission acted with the arbitrary abruptness of a court of law, it overlooked the fact that, even in a court, a judgment is supported by the argument and evidence on which it is based, but the Commission's order is unaccompanied by either argument, evidence or explanation.

Does it represent the opinions, and has it secured the approval, of all three Provincial Commissioners, Hon. Adam Beck, Colonel Hendrie and Mr. W. K. McNaught? Were their separate judgments verbal or in writing?

Also, in the practice of the Bench, we frequently find a judge dissenting, giving in writing the reasons for his disagreement.

Did Mr. McNaught, the representative of Toronto, assent or dissent? If he dissented, did he furnish the Commission with his views verbally or in writing? If in writing, why were they not published?

Did Colonel Hendrie, who lives in the important manufacturing city of Hamilton, assent or dissent? If he disagreed with the policy of his colleagues, why is not the public informed of the fact? If he agreed, why did Mr. Beck not strengthen his own position by publishing Colonel Hendrie's judgment?

What is the reason for the Star Chamber silence of the Chairman, Mr. Beck, on the unanimity or the lack of unanimity of the Commissioners?

The question the people of Toronto and the people of Ontario are asking is: Did the order issue for business or political reasons? Is Mr. Beck's determination to subdue the Toronto Commission inspired solely by the zeal of a public servant, anxious to continue a great work, or is it colored by the desire to strengthen himself throughout the Province in the hope of being its next Premier?

The Toronto Hydro-Electric System represents a capital investment of $5,552,607. The arrears on sinking funds accumulated to date amount to $94,617. Last year, $884,620 was spent in extensions and improvements and it is reasonable to assume that a similar amount is being spent this year. It is a well-known fact that there are a number of outstanding disputes between the System and the City, such as an account of between $20,000 and $30,000 for moving poles which has been repudiated by the City and which may have to be replaced from earnings. None of the great debt owing to the City has been paid.

With these accumulated burdens on their backs, the Toronto Commissioners, unless they secure a large volume of new business, must face a considerable reduction in the demand for light and power, due to the commercial depression and to the long days of summer. To increase the demand for their products, their only source of revenue, the Commissioners decided to build a steam reserve plant in order to guarantee that continuity of service which is demanded by their present and prospective customers. If they believe that the interests of the Toronto System demand that continuity of service be assured before the present rates are reduced, why should they be over-ruled? Supporters of Mr. Beck have erroneously claimed that the operation of the steam plant would cost $250,000 annually,

or $10 per h.p. of the present maximum of the system, which is 20,000 h.p. The truth is that the actual cost of operation should be between $150,000 and $175,000 annually, and, instead of estimating the h.p. increase on 20,000 h.p., the maximum of the system, they should have estimated on about 55,000 h.p., the connected load, which would show an annual increase of only about $3 per h.p.

But, in spite of the fact that the Toronto Commissioners were supported by the general manager of the system and by the City Council, Hon. Adam Beck opposed the steam reserve plant and ordered a ten per cent. reduction of the present rates.

What does this order mean to the consumers of Hydro-Electric light and power in Toronto? The average bill of the manufacturers of Toronto who use Hydro-Electric power is about $25 per month. The average bill of the householders of Toronto is less than $1.50 per month. Many bills are under $1.00 per month and a considerable number are under fifty cents per month. Therefore, the reduction ordered will save the average manufacturer $2.50 per month, the average householder fifteen cents per month and the small householder from five to ten cents per month.

This is the great boon that Hon. Adam Beck is forcing upon the Hydro consumers of Toronto at the expense of prudent business practice.

What is $2.50 per month to a manufacturer? The wages of a laborer for a day. What signifies five, ten or fifteen cents per month to the householder? A few car tickets.

For this economy of a day's wage the manufacturer faces the possibility of unexpected and disastrous breaks in the service. Suppose his wage bill is a hundred dollars a day, a seven-hour break in the system, such as occurred in January, 1914, might cost him nearly a hundred dollars in wages. Moreover, if the break occurs when a process is nearing completion, several hundred dollars worth of material may be destroyed. When he loses say five hundred dollars in a day, will he be consoled by the reflection that Hon. Adam Beck is saving him $2.50 per month?

Will the storekeeper, who loses trade and possibly suffers from theft owing to the darkness, thank Hon. Adam Beck for saving him a trifle at the end of the month?

Will the citizen, as he gropes about his dark house and looks out at his dark street some sultry night, consider that his several hours of gloom are lightened by the knowledge that Hon. Adam Beck is adding five or ten cents monthly to his bank account?

Why did Mr. Beck force his order? Surely not because the average price obtained in Toronto is higher than that prevailing in other Hydro-Electric municipalities? For example, his last report shows that, for street lighting per 100-watt lamp, Toronto charges $9.00, Hamilton charges $18.00, London charges $11.00 to $12.85, and Woodstock $10.00.

Did he dispose of the matter summarily because Toronto is a small customer? Scarcely, when his report shows that, in 1913, Toronto used a load of 17,997 h.p., or nearly half of the total load of 37,674 h.p. used on the Niagara System.

The keynote of the policy of the Provincial Hydro-Electric Commission towards the Toronto Commission, its largest customer, should be non-interference.

The Act which created the latter states: "The municipal electric light, heat and power works (including any purchased) shall be managed by a Board of Commissioners to be called the Toronto Electric Commissioners." The question now arises as to the status of the Toronto Commissioners. Are they to "manage" the system or are they to be the obedient echoes of Mr. Beck?

In some quarters the impression has been created that the Toronto Commissioners are opposed to the principle of reducing local rates, but this error can be corrected by reading the following extract from their last report:

"Whenever the conditions warrant it, the rates will be lowered, but it would be a breach of trust on the part of your Commissioners to sanction any reduction thereof before the financial condition of the enterprise justifies it. It is the policy of your Commissioners to give, in the first place, a first-class service, and in the second place to give that service at the lowest cost possible."

We submit that this is a sound practical policy and that the Toronto Commissioners, and not Mr. Beck, should decide the manner in which it should be carried out.

The Ugliness of Factory Towns.

"TO hear Protectionists talk," said the editor of a Canadian daily paper to the writer, recently, "one would think that the highest point of civilization would be reached when this country is dotted with factory towns; but, as a matter of fact, your industrial town is one of the ugliest things in civilization."

We have to admit that this charge, though exaggerated, has a foundation of truth. Too often, the factory town is ugly, unnecessarily ugly. In some New England towns, for example, the lack of features pleasing to the eye is depressing to the visitor. It is no doubt true that, in former times, many industrial towns possessed an ugliness which was appalling.

There are encouraging signs that this characteristic is passing away. An ugly factory is a poor advertisement. Many factory owners on this continent are now acting in the theory that the appearance of a plant should be an asset. A good design, plenty of paint, vines, shrubs, flower beds, good houses for employees, all these things incline the capricious consumer towards the product.

If a manufacturer is careful to pack his goods in attractive cases, he should be equally careful to manufacture them in an attractive plant.

The best way to answer our newspaper editor's charge is to remove from our factories as many as possible of those things that offend, and by every practical means to make our industrial towns pleasant places in which to live.

Buy at Home.

WHOSE fault is it that our imports are more than double our exports? It is the fault of the buyers.

Buy at home if you get tired looking at the trade balance against Canada. You're to blame, Mr. Consumer.

Why don't you stop sending money abroad for foreign goods, in cases where you can get Canadian goods of the same or better quality at the same price?

Your hand goes in your pocket several times a day. It comes out with Canadian money. How many times a day do you and your family say to the sellers, "I want to see articles 'made in Canada.'"

At least, look at Canadian goods before you buy.

Factories and Land Speculation.

IN describing the industrial growth of Victoria, B.C., the *Daily Times* of that city says that it now contains seventy-five factories, which, if collected into one district, would form a manufacturing section of considerable size.

"Our progress since the census of 1911 is worthy of comment," says the *Times*. "In that year Victoria had fifty-four manufacturing establishments, representing a capital of $10,338,340, employing 2,230 people, who received $1,178,433 in salaries and wages. The value of the product was $4,315,534. The increase in the number of establishments in the last three years amounts to almost forty per cent., and if we extend that rate to the capital involved, the number of hands and the wage account, our progress will be shown to have been very satisfactory.

"The other day the retiring president of the Edmonton Board of Trade, in dealing with the industrial situation in the Alberta capital, pointed out that it was more desirable that the factories already in existence should increase their output than that the number of establishments should increase. There are two well-established schools of thought on this point, but there can be no question as to the soundness of the view he also expressed that the best way to encourage manufacturing is to develop the surrounding country and thereby provide a market.

"This is as true here as it is in Edmonton. If we would have more manufacturers we must develop our resources by settlement and not parcel them out to speculators. There were newspapers not very far from here which not more than a year ago declared in one issue that speculation in farm lands was a good thing for the country and in another eloquently advocated more factories for this city, apparently oblivious to the fact that factories cannot exist without markets, and that there can be no markets where excessive speculation reigns."

The *Times* accurately states some truths which are applicable, not only to Victoria, but also to many other western cities and towns. The land speculator injures the manufacturer principally in four ways: he increases the values of urban lots so greatly that the employees of factories cannot be properly housed; he leaves city land low-taxed and vacant, and grows rich from unearned increment, while the manufacturer pays taxes on both land and improvement; he increases the price of farm lands in the neighborhood of cities and thus hinders the development of rural markets for manufactured goods; and, finally, when he has made his fortune, he either buys foreign goods or he spends the greater part of his time and money abroad.

The elimination of the speculator will make the path of the western manufacturer easier to travel.

Dr. Robertson in New Brunswick.

GOOD work is being done by Dr. J. W. Robertson, Chairman of the Royal Commission on Technical Education and Industrial Training, in New Brunswick. Dr. Robertson likes to present through public lectures his information to those whom it will interest. His lectures in the Maritime Provinces have been well received, according to newspaper reports. He emphasizes the programme laid down by the commission on technical education, which involves hand training and pre-vocational training in the common schools; secondary industrial and technical training in these schools for pupils from twelve to sixteen years of age; continuation classes for young people; evening classes for workmen and workwomen; and technical schools to which men and women could return for periods from six months to two years after they had been working for some years. In other words, he appears before audiences, drawn from all classes, and tells them just how technical education will benefit them, which is the most convincing and effective of all arguments.

Manufacturing for Export.

IN discussing ways and means of making money to pay our debts abroad, the *Canadian Courier* says:

"Lumber, furs and fish once comprised our chief exports. Lumber has almost failed us, and furs are nearly negligible. In their place came wheat. Ten years hence the population may have grown so large that the export of wheat will be stationary. What then, shall we send abroad to pay our debts?

"At present we send some manufactures abroad. The removal of the United States duty on manufacturing implements may increase the export of various lines. But on the whole, our exports of manufactures are small. Is it not, then, reasonable to suggest that our problem is to build up manufacturing industries so that we shall have surplus manufactures to export?

"If Germany and Great Britain and the United States find the export of manufactures to be a great source of wealth, Canada should give careful attention to the same phase of development."

We would like to see the export of our wheat to Europe decreased now by milling wheat grown in Canada at home

and shipping surplus flour and other wheat products abroad. We agree with the *Courier* that it is supremely important for Canadian manufactures to develop to the point of effective competition with other manufacturing countries in the world's markets.

The tariff policy laid down by the Hon. W. T. White will secure these results—by protecting not only our milling industry, but other industries, upon which we must depend to a great extent for the money which will ultimately square our international trade balance.

High Wages in Saskatchewan.

IT is certain that the number of unemployed in Western Canada has been greatly exaggerated.

At the Saskatchewan Builders' Exchange convention, just concluded at Moose Jaw, the following maximum wage schedule was adopted for the present year: Bricklayers, 70c.; stonemasons, 70c.; stonecutters, 65c.; carpenters, 50c.; electricians, 50c.; painters and paperhangers, 45c.; plumbers and steamfitters, 60c.

It is obvious that such rates of wages could not exist where there was a great over-supply of labor to force down the demand.

Restoring Good Times in Canada.

IT is an extraordinary thing that the people of Canada should try to make money plentiful by sending it out of the country to purchase foreign manufactures.

Is this the way to restore good times?

During the fiscal year ending March 31st, 1914, we bought $455,322,535 worth of goods from the United States and $138,761,568 worth of goods from the United Kingdom.

Manufacturers cannot make goods faster than they are bought. Every Canadian dollar which goes out of the country in search of a foreign product helps to delay the return of good times. If you want to see Canadian factories running full speed ahead once more, buy at home.

Holding up the Manufacturers.

"PLENTY of manufacturers have had trouble with the fake advertising solicitor or the real advertising solicitor for the advertising fake. That evil, like the evil of the little bunch of tickets to the Hod Carriers' Ball (costing only $5), is always with them," says Marshall Cushing's Magazine, *How*, in discussing the various hold-ups to which manufacturers are subjected. Among the chief of these, he names the jobber's catalogue, before he proceeds to point out the remedy.

"But the case of the manufacturer is not entirely hopeless if he belongs to a sufficiently strong organization in his industry. He can appeal to that, and if the members of that organization are only sufficiently sincere in going after palpable abuses and in passing resolutions to the effect that they will certainly do it in concert, then the rest is easy. Your hold-up artist hesitates to go against the whole crowd. He has done it in times past, it is true, but where a group of honest, determined and decent men co-operate, he cannot last long.

"This, by the way, is a hint, not intended to be especially gentle, to those benighted individuals now adorning the manufacturing group in this country by being members of it, who can't see that there is any reason why they should become members of the organization in their industry. If they live long enough and continue in business and if they ever take the time to read anything, they will find out in time that there was something after all in that fine old fable of the bundle of sticks."

Manufacturers can only co-operate continuously and effectively through a permanent organization. Those in Canada who do not belong to the Canadian Manufacturers Association, should take Marshall Cushing's hint and join; if they do belong, they can use their organization as an implement to weed out the rank growths of hold-ups in this country.

Necessity for Accident Prevention.

THAT the startling growth in the number of industrial and railway accidents in Canada should stimulate the accident prevention movement, is shown by the following figures which were specially prepared for INDUSTRIAL CANADA by Messrs. Willis, Faber and Company:

	1911.	1912.
Fatal industrial accidents	1,084	1,220
Non-Fatal industrial accidents	2,146	5,780
Fatal accidents to steam railway employees	178	332
Fatal accidents to electric railway employees	5	14
Non-fatal accidents to steam railway employees	281	1,831
Non-fatal accidents to electric railway employees	34	64

Even such appalling losses pale before those of the United States:

Every sixteen minutes of the year a workman is killed in a factory or on a railroad by an industrial accident somewhere in that country; every sixteen seconds in the year a workman is injured. This is the record:

Killed annually in industrial accidents..... 35,000
Injured annually in industrial accidents 2,000,000

We believe that Canada will enjoy a great industrial and railway expansion, similar to that experienced by the United States. Are we going to pay the same high price for our development in the dreadful currency of flesh and blood?

Mayor Martin and the Unions.

ACCORDING to newspaper despatches, Mayor Martin of Montreal has ordered the use of the union label on all municipal stationery. This is an unjust discrimination against manufacturers who have not submitted to the tyranny of the closed shop. Mayor Martin says to the heavily taxed stationery manufacturers of Montreal: "Unionize your shops or the city will not buy your goods. The city will penalize you for keeping an open shop and it will also punish your workmen who consent to allow other men the right to labor."

Mayor Martin made himself ridiculous when he failed to fulfill his pre-election promises to provide all of the unemployed with comfortable jobs; but he becomes dangerous as well as ridiculous when he waves the union club over the citizens of Montreal.

Prevention of Factory Disease.

A CAMPAIGN to prevent diseases in factories has been started by Dr. Hastings, Medical Health Officer, Toronto.

Every manufacturer will co-operate with him, if his demands are reasonable, as the prevention of disease, especially of the communicable forms, is most desirable, not only for practical but also for humanitarian reasons. It does not pay to have diseased employees.

The good judgment and ability displayed by Dr. Hastings since he assumed his office inspires confidence. Toronto has now the lowest death rate of all the cities with a population over 450,000 in North America, and stands second among the cities with populations over 500,000 in the world. During 1910 and 1911, there were 750 deaths from scarlet fever, diphtheria and typhoid in Toronto; during 1912 and 1913, there were only 454, in spite of a large increase in population.

The Merchants' Bank Report.

A HAPPY achievement of the Merchants' Bank of Canada is recorded in the report submitted to the shareholders on the bank's fiftieth anniversary,—the equalization of the paid-up capital and the reserve fund, both of which now stand at $7,000,000.

The net profits of the year reached the gratifying total of $1,218,694, of which $686,574 was required to pay the ten per cent. dividend, and $248,134 was carried forward.

The President and directors are to be congratulated on their successful year.

Efficiency Quacks.

EFFICIENCY is a good thing to strive for. Perfect efficiency is never attained, but high degrees of the quality may be secured.

Manufacturers are familiar enough with "efficiency engineers," and "efficiency" articles in magazines. Some of these are "efficient," but many are not.

When one hears an efficiency engineer instructing an experienced manufacturer how to run his business, one often asks why the adviser's efficiency has not secured him the possession of a factory or, at least, the management of one. Similar speculation extends to the apparent inefficiency of the professional writer's efforts to secure for himself a more remunerative employment.

The manufacturer can learn a great deal about efficiency by talking with other manufacturers or visiting their plants. Still, some efficiency engineers are good men and some efficiency articles are worth filing away; but it is unfortunate that the manufacturer must toss aside so much chaff to find the grains of practical wisdom.



British War Office Must Recognize Canadian Made Rifles
—Toronto World.



Oliver Twist Canada Asks for More

Programme, Annual Meeting, C.M.A.

The Association will present much business to the members in

MONTREAL

ON

June 9, 10 and 11

The business and entertainment features of the Montreal Convention have been tentatively arranged as below, subject however to such changes as unforeseen circumstances may make necessary.



Mr. C. B. Gordon, President
Canadian Manufacturers Association

Tuesday, June 9th

9.00 a.m.—Registration Office (Windsor Hotel) opens, and will remain open during entire Convention.

10.30 a.m.—Meeting of Committee on Nominations and Resolutions, Room, 129.

2.30 p.m.—(First Business Session).
Secretary's Report.
Treasurer's Report.
President's Annual Address.
Report of Membership Committee.
Report of Insurance Committee.

8.30 p.m.—Reception at the Ritz-Carlton. Guests to be received by Messrs C. B. Gordon, J. H. Sherrard and T. P. Howard. After the reception, dancing.

Wednesday, June 10th

10.00 a.m.—Report of Executive Committee.
Address, "Industrial Museums," Mr. C. T. Currelly.
Report of Tariff Committee.

2.30 p.m.—Meeting of Biscuit and Confectionery Section, Room 129.

2.30 p.m.—Report of Legislation Committee.
Address, "A Federal Insolvency Act," Hon. C. J. Doherty.
Report of Workmen's Compensation Committee.

3.15 p.m.—Ladies' Drive, followed by Tea on the Mountain Top.

8.30 p.m.—Smoker and Ladies' Night at the Country Club, St. Lambert. Cars leave Windsor Hotel at 7.15 p.m.

Thursday, June 11th

10.00 a.m.—Report of Education Committee.
Report of Transportation Committee.
Election of Officers.
New Business.
Resolutions.

2.30 p.m.—Harbor Trip. Inspection of Dry Dock and Harbor Grain Conveying System. Cars leave Windsor Hotel at 2.15 p.m.

7.45 p.m.—Annual Convention Banquet.

8.15 p.m.—Theatre Party for Ladies, followed by supper at the Windsor.



This photograph shows the highest buildings in the British Empire. They are situated in a group on the corners of King and Yonge Streets, Toronto. On the left, in course of construction, is the new skyscraper of the Royal Bank, which will be 250 feet high, containing 20 storeys. The white building behind the Royal Bank building has just been completed by the Canadian Pacific Railway. It is 238 feet high, containing 15 storeys. Next in line is the Traders Bank Building, which now belongs to the Royal Bank. It is 15 storeys, or 200 feet high. Opposite these "three sisters" is the new building of the Dominion Bank, 183 feet high and containing 9 storeys.

PROGRAM OF DOMINIONS ROYAL COMMISSION

Evidence will be taken in Canada during August

THE Commission suggest the following subjects for evidence in Canada:—

I. Communications.

(a) Steamship.—What improvements are suggested in regular cargo or passenger and mail services between Canada and the United Kingdom, or between Canada and the other Dominions?

Is acceleration in speed of such services desirable?

What views are held as to probable effect of Panama Canal on trade of Western Canada with United Kingdom and South Africa, and trade of Eastern Canada with Australia and New Zealand?

(b) Post and Telegraph.—Is there any advantage in an all-red or trans-Canada route for services to Australia and New Zealand?

What views are held as to the construction of a state-owned Atlantic Cable, to be linked up with the Pacific Cable by a state-owned or state-controlled telegraph line across Canada?

What improvements are suggested in present system of United Kingdom? To the other Dominions?

What improvements are suggested in present system of deferred and week-end cablegrams, and of daily cable letters? Are these facilities desired between Canada and Australia and New Zealand?

(c) Harbours.

(d) Freights and Bills of Lading.—Alleged existence of cheaper rates of freight from Continental and United States ports to the Dominion than from ports in the United Kingdom.

Right of ship owners to contract themselves out of liability under present bills of lading.

Through bills of lading.

Control of ocean freight rates between Canada and the United Kingdom. Consideration of statement prepared for the Commission, and of Mr. Drayton's report.

II. Railways and Railway Finance.

(a) Systems open for traffic.
(b) Proposed extensions.
(c) Capital and Debt.

III. Natural Resources and Their Development.
(Including questions of marketing and distribution).
(a) Agricultural.
(b) Mineral.
(c) Forests.
(d) Irrigation and Water Power.
(e) Fisheries.

IV. Trade.

(a) Improvement of Statistical Methods, with particular reference to:—

Uniform valuation of imports.

Uniform system of weights and measures in connection with statistics.

Effect of investments of capital on imports and exports.

Uniform statistical year within the Empire.

Uniform classification in the tariffs of imports, and classification of exports in the various Dominions.

More speedy publication of statistics.

Suggestion of periodic conferences of Empire statisticians.

Creation of an Imperial Statistical Bureau, which would be concerned not only with statistics of imports and exports, but with statistics of production, labor, etc.

(b) Exhibitions:—

Periodical exhibitions alternating between the United Kingdom and the Dominions.

Permanent exhibition of imperial products in London.

Exhibitions in the United Kingdom and Dominions of samples of foreign goods competing with British products.

(c) British Empire Trade Mark.—Is the use of an Empire Trade Mark favored, and for what reason? If not favored, why?

(d) Misrepresentation and Misdescription.

(e) Trade Commissioner Service.

V. Legislation.

(a) Double Income Tax and Death Duties.
(b) Patent Rights.
(c) Codification and consolidation of the Commercial Laws of the Empire.

VI. Empire Development and Organization.

This subject, which seems very vague, is to some extent explained by some remarks of the Chancellor of the Exchequer at the Imperial Conference in 1911. He instanced the need for some person, or some authority, to act in the position of promoter, to help forward Imperial schemes of joint development. Such schemes, to which all parties could readily subscribe, were often delayed and sometimes wrecked because nobody was in a position to undertake the promotion. Should there be something in the nature of an Imperial Development Board, to promote the trade, commerce and public works of the Empire? If so, how would it be financed? What powers would it have? Would it control subsidized mail and telegraph services?

VII. Migration.

Nearly all the evidence sought under this heading can and should be supplied by Government officials. The following question, however, is pertinent to manufacturers:—"Is it thought desirable that there should be established in Canada under Government supervision a system of labor exchanges? Would it be feasible to provide for co-operation between such exchanges with those of the United Kingdom with a view to control of distribution and supply?"

General Comments.

These suggestions are not to be taken as in any way limiting the subjects upon which the Commission will be willing to hear evidence. They simply indicate the general tendency of the evidence thus far. If it were thought desirable, for example, to direct attention to the effect, on inter-imperial trade, of commercial travellers' taxes, taxes and disabilities placed upon extra-provincial companies, etc., the Commission would no doubt regard these subjects as quite pertinent.

Note.—The attention of the C.M.A. has been officially drawn to the great importance of the work of the Commission, and it is asked to facilitate their enquiries in every way possible. To this end, it is invited to send in promptly the names of those of its members who will give evidence on its behalf, and to furnish a concise summary showing the character of the evidence to be submitted by each person.



First Aid for a Fractured Thigh

FIRST AID WORK ON THE CANADIAN PACIFIC RAILWAY

By S. A. GIDLOW

ONE of the most popular movements on the Canadian Pacific Railway of recent organization, is that of "first aid" to persons suffering from accident or sudden illness. In order that the reader may understand the importance and value of first aid, both to employer and employee, it may be well to give a brief outline showing what first aid is, what its objects are, and the results of proper and improper first aid treatment. Its objects are:

1st. To teach non-professional people the best way to render immediate attention to any person suffering accident or sudden illness until the arrival of the doctor.

2nd. To teach people what not to do in accidents, so that there shall be no likelihood of a sympathetic but ignorant person causing unnecessary pain or suffering through improper treatment.

3rd. That in case of accident or emergency, such as bleeding, poisoning, choking, or drowning, a life may not be sacrificed for the want of a little elementary knowledge on the part of the bystander.

Treating Accidents.

It is practically impossible, with the space at our disposal, to give the number of accidents treated by first aid, but at the Angus Works, Montreal, alone, treatment has been given to a large number of employees during the past twelve months, which reflects great credit on the ambulance men concerned. Dr. Gunne, of Kenora, gives striking examples of two out of the many cases of a similar nature, which go to show the value of this work to employees. He writes as follows:

"A man named Cartner received a simple fracture of the fibula, a few inches from the ankle, whilst working at the Kenora roundhouse. He was immediately attended to by members of our first aid class, and after the limb was properly secured, they conveyed him two miles to the General Jubilee Hospital. In six weeks he was walking again, and is now not feeling the slightest ill effects.

"Within a short time of this accident, another man was hurt at Rennie, a distance of about 50 miles west of Kenora. He was a fireman, and his injury at the time of the accident was practically identical to that which was received by Cartner. The train crew placed him on their train, and ran into Kenora without having done the least thing to prevent pain or further injury. The man was in the hospital for three months, and still feels a weakness of the part, and has a slight limp."

Results of Poor Treatment.

Dr. Gunne avers that if any one of the train or engine crew present had taken our first aid course, this man would have been a month less in the hospital at least, and probably had a better leg as well. These cases, being so much alike in their nature, afford a striking comparison, bringing out strongly the effectiveness of our work.

Another case happened a little west of Raith, on the Ignace-Fort William Division. A brakeman named F. B. McKee was stepping from one car to another, when, for some reason the air brake was applied from behind, causing the train to separate at that point. He fell between, and two trucks passing over him, wedged him to the ground. It was found that he had broken his thigh bone. McKee holds a first aid certificate, and by keeping cool, he instructed his work mates (who were not first aiders) how best to help him, and how to apply splints and bandages to the disabled limb. He was taken to Fort William in comparative comfort, and Dr. Martin gave him great praise for the able way in which he

had given his instructions. McKee is nearly well again, and his leg will be as good as ever.

Conductor C. W. Leach rendered excellent service to a section man who had one foot badly torn and left leg broken. Dr. Mulligan, who attended to the patient later, wrote to our local secretary at Ottawa as follows:

"Having learned that you are interested in first aid to the injured, I desire to let you know of the excellent services rendered to Sectionman Gideon Courchaine by Conductor Clarence Leach. I have not the least doubt but that Courchaine would have bled to death had it not been for the timely and efficient assistance of Mr. Leach. Leach not only stopped the hæmorrhage by his proper application of the tourniquet, but in several other ways showed the advantage of his training in this direction. I cannot speak too highly of Mr. Leach, and his work on this occasion goes to show that all railway men should be so trained."

On the 16th of May, 1913, Yard Foreman A. Jobin, Quebec, whilst running alongside a train, struck his foot against a tie, causing a fall, which fractured his thigh bone. First aid treatment was effectively administered by Yard Master Vachon and Operator Richard, and Dr. Turcotte said



Fixing a Broken Knee Cap

that the first aid treatment was so effective and the bandaging so well done, that it was not considered necessary to change the bandages at the hospital for two or three days.

The Value of Knowledge.

Needless suffering, caused by the ignorance of unskilled persons, is deplorable. By rough handling, or for want of the slight knowledge necessary to enable one to support an injured limb, very serious consequences may ensue. To arrest bleeding from an artery is quite easy, yet thousands of lives have been lost in the presence of helpless spectators, who had not been taught that little knowledge necessary, which will enable them to give intelligent first aid to the sufferer. In order to prevent all this unnecessary suffering and loss of life to employees, and to the travelling public who may at times suffer accident or sudden illness, the directors of the Canadian Pacific Railway have inaugurated a large and broad-minded humanitarian scheme, whereby all their employees who so wish, and especially those employed on wrecking and passenger trains, may obtain instruction sufficient to enable them to render suitable treatment until such time as the patient may be conveyed to a doctor. The men are given free lectures and practical instruction by qualified medical practitioners, and provided they pass the necessary examination they are recommended for the certificate of the St. John Ambulance Association. After the examination, men holding the certificate may meet together for practice, and are thereby kept up to a proper state of efficiency. An ambulance man is given to understand strictly the relative position first aid has to the medical profession. He is not expected to supplant the doctor, to re-dress injuries, or to treat any accident to its final solution, for the simple reason the work of the ambulance man ends where the doctor's commences, that is to say, the duty of the ambulance man is to prevent personal injury being made worse by the unqualified but sympathetic attention of his colleagues or fellow workmen. He would, if necessary, apply splints and bandages, administer simple remedies, place the sufferer in the most safe and comfortable position, and await the arrival of the doctor. In a less serious case, he would give such treatment as was necessary, and convey or send his patient to a doctor, and there his responsibility ends.

Where Lives Were Lost.

Every medical man could, from his own experience, give instances where the want of a little knowledge has led to



First Aid for a Broken Fore Arm and Fractured Collar Bone

increased suffering and subsequent harm to the injured person, and even to unnecessary loss of life. Now if there is one fact recognized more than another by medical men it is this, namely, that the medical treatment adopted in the case of any severely injured person, has a positive influence, and a most important bearing upon the progress of the case. The first aid treatment is given in that interval which intervenes between the occurrence of the accident, and the arrival of the medical man—that anxious and trying moment which most of us know so well, before the patient can be taken to the doctor or the doctor brought to the patient, when we feel that something should be done, and when that something is the right thing, done by one not only qualified, but who is acting under the teaching of the medical man who will subsequently attend the case, it not only aids the speedy recovery of the unfortunate person, but brings a great sense of relief to those looking on.

The Place of the Pulmotor.

With a view to assisting further in the work of the department, the management approved the purchase of a Draeger Pulmotor, a machine for rendering artificial respiration in cases of electric shock, etc., to be used in the Angus works, Montreal. The use of the apparatus is very simple, and any

workman can learn its application in one or two lessons. The machine works uninterruptedly for 40 minutes, and oxygen is pumped automatically in and out of the lungs without any assistance whatever from the patient. This will undoubtedly prove a very useful acquisition to first aid work.

Men Instructed and Examined.

Prior to October 1st, 1912, 3,009 men took first aid instruction, and during the year ending September 30th, 1913, 2,274 have received instruction, of whom 1,108 have qualified for the certificate, and 407 have taken higher grades of examinations, giving a total for the year ending September 30th, 1913, of 1,515 who took examinations, and a grand total since the commencement as follows:

Men holding certificates	2,806
Re-examinations	741
Grand total of examinations	3,547
Grand total of men instructed	5,546

Ninety classes were organized during 1913, as per statement herewith.

The Men Who Make Themselves Efficient.

Occupations.	No. of men.
Officials	22
Steamships	28
Foremen	182
Agents	37
Trainmasters	2
Yardmasters	13
Inspectors	56
Dispatchers	15
Operators	20
Trainmen	761
Shopmen	1,190
Yardmen	24
Storesmen	40
Clerks	363
Checkers	84
Porters	24
Freight and baggage	37
Miscellaneous	649
Grand total	3,547

The Value of Competitions.

The competitions this year were exceptionally popular, and a large number of teams entered for the trophies kindly presented for this purpose by the General Superintendents.

"FIRST AID."

An excellent book on "First Aid" to the sick and injured has been published by the Macmillan Company, Toronto. It is written by F. J. Warwick and A. C. Tunstall, two well-known Englishmen, who have combined knowledge with experience in producing this valuable work.

NATION'S WEALTH INCREASED BY MANUFACTURES.

The country that sells raw materials will always be poor, just as the farmer who sells corn, and not hogs, will never lift the mortgage.

If you have a forest, and can work it up into tables, chairs, bookcases and violins you will make a deal more money than if you sell firewood.

The United States has one-sixteenth the population of the world. But we have one-third the wealth of the world.

The North American Indians had the raw stock, but they did not know how to use it. Our wealth comes from the ability to combine coal and iron-ore; lumber and steel bolts; leather and shoestrings; paint and glue; rubber and steel.

So we have supplied the world automobiles, shoes, farm implements, locomotives, engines, brass castings, machinery and manufactured commodities in a million forms.

And to-day there is being brought into America in payment for goods manufactured in the United States, five thousand, five hundred dollars every minute for ten hours, three hundred days in the year.—*The Philistine.*

HEAT AND POWER FROM SAWDUST.

An application has been made to the City of Vancouver by ten prominent saw-mill owners for a franchise to sell steam heat and electric light and power generated by burning saw-mill refuse. The application came immediately after the report of a committee of the City Council dealing with the smoke and saw-mill dust nuisance due to burning mill refuse in the city.

It is proposed to install plants for burning the refuse at each of the various mills, thus permitting a wide zone of distribution and enabling steam heat to be furnished at much lower pressure than from one central plant. The intention is to establish an auxiliary oil-burning apparatus at each mill for use in case of accident to the main plant and also whenever the supply of refuse runs low.

The problem of disposing of refuse without a loss has confronted mill owners for years and with coal selling at $7.50 a ton retail in Vancouver, it is thought that this scheme for utilizing it will prove successful. It is estimated that these mills have 114,000 cords of refuse and sawdust to burn each year. The approximate cost of installing each burner is placed at $30,000, and the annual operating cost as $5,000.

TECHNICAL EDUCATION FOR FISHERMEN.

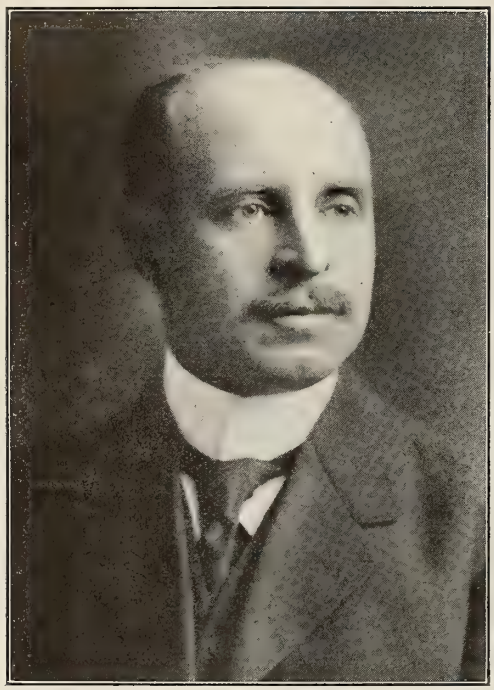
The fishing interests of Nova Scotia are urging upon the Government the importance of providing some kind of a system of technical education for fishermen. It is urged that, notwithstanding the fact that one person out of every sixteen in Canada depends on the fish industry for a living, there is practically no provision made for the technical education of the men who are engaged in curing or catching the fish. It is also pointed out that Canada's fisheries yield a value of over $30,000,000 yearly without counting the quantities of fish that are used for home consumption, the value of which is estimated at $10,000,000. Almost 100,000 persons are directly employed in the fish industry, and also there is a large number of men who obtain employment through it, in such ways as boat building, sail making, rigging vessels, blacksmithing, building motor engines, the work of transportation, supplies and ice dealing and retailing all over the province.

PROSPERITY RETURNING IN 1915

This is the Prediction of Mr. R. D. Fairbairn, Retiring Chairman of the Toronto Branch, C.M.A.

"CANADA has only halted for a short period in her remarkable development. I cannot come to any other conclusion, from such observations as I have been able to make, than that, commencing in September of this year, provided that crop conditions are up to the average, there will be a gradual improvement in trade conditions culminating in a year of unusual activity in 1915."

The above optimistic prophecy was delivered by Mr. R. D.



Mr. R. D. Fairbairn (R. D. Fairbairn & Co., Limited), Retiring Chairman, Toronto Branch

Fairbairn, retiring Chairman of the Toronto Branch, Canadian Manufacturers Association, at the annual meeting held in the Ontario Royal Museum, Toronto, on June 14th.

"Our customers who did not buy last year will no doubt give us more than the usual business in 1915. In addition to that we will have the new connections made in 1914, which should be held at all costs, and lastly we must hold and further develop our foreign connection, for we might just as well realize that we cannot keep up the pace at which we are going without having a reflex action at fairly frequent intervals."

In referring to the Toronto Bureau of Municipal Research, towards the maintenance of which private citizens had pledged $100,000, Mr. Fairbairn spoke favorably of the excellent results achieved by the Bureau's experts. He also approved of the ratepayers' association, which developed and crystalized public opinion on important subjects.

Mr. Fairbairn's remarks on the increase of the minimum wage paid to city laborers will interest many manufacturers in those cities where similar agitations are on foot.

"The wage paid to common labor is the basis upon which all other wage schedules are built, and in the event, for instance, of Toronto purchasing the street railway, the employees would naturally expect a wage scale at least fifteen per cent. in advance of common labor. An increase of fifteen per cent. in wages would mean a probable increase of ten per cent. in operating charges, and it is by the maintenance of the present operating charges that the advocates of the purchase proposed to overtake the intangible assets, yet in spite of this fact we find that those members of council who have been strong for the purchase, have been equally strong for the minimum wage."

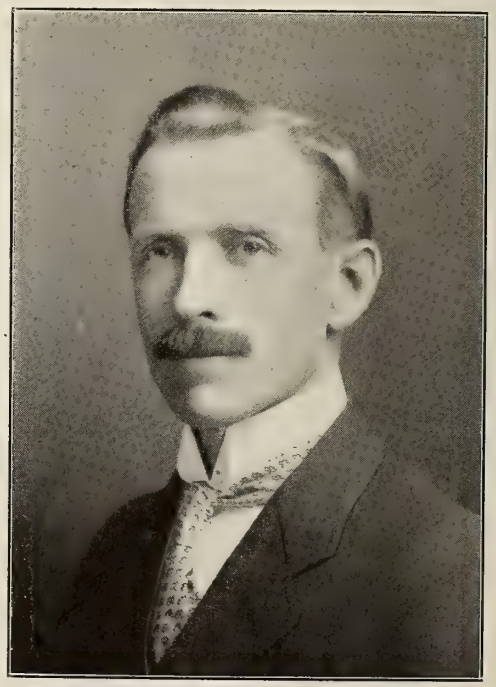
Mr. Fairbairn emphasized the weaknesses of the Ontario Workmen's Compensation Bill and corrected the false impression that manufacturers, in opposing the vicious clauses of the measure, were hostile to the principle of compensation.

He congratulated the Ontario Government for passing a fire marshal bill, but condemned its failure to enact bulk sales legislation, upon the necessity of which all interested parties had agreed.

As the housing of workmen is always a problem for manufacturers, Mr. Fairbairn's description of conditions in Toronto is of interest:—

"Before the winter sets in the Toronto Housing Company will have accommodation for 150 families. In as far as they have gone they have given us a practical demonstration of the co-operative plan as applied to the solution of the housing problem by providing modern sanitary dwellings upon a rental basis equivalent to not higher than twenty-five per cent. of the earning capacity of the occupant.

"There will always be in any community a class of industrial workers whose occupations make it necessary for them to move frequently from place to place, and in consequence there is an absence of incentive to own their own houses. However, they should be able to find comfortable dwellings at a rental within their reach.



Mr. Geo. Brigden (Brigden's Limited), Elected Chairman, Toronto Branch

"On the other hand, the provision of homes upon a rental basis is not a complete solution of the housing problem. It is the ambition of every right-minded workingman, barring those forced to move about from place to place, to own a home of

his own, and when the Company in a measure overtakes the demand for rentable houses, it is their expressed intention to develop the co-partnership plan, which means that by paying in monthly installments a little in excess of a rental charge, the occupant will in time come into full ownership."

Technical Education.

As the newly-appointed chairman of the Ontario Association for the Promotion of Technical Education, Mr. Fairbairn will be brought closely in touch with the conditions governing the preliminary processes of industry. The object of this body is "to bring into relationship with it the various business interests in order that their influence may be felt in moulding and refining our system of education, and also to urge upon the Federal Government the advisability of giving effect to the recommendation of the Royal Commission on Technical Training."

The Work of the Executive Committee.

A programme of important achievements of local interest and scope was presented by Mr. T. F. Monypenny on behalf of the Executive Committee of the Branch, and included such items as town planning, city transportation, municipal campaigns, educational topics, and water rates.

In the report of the Exhibition Committee, Mr. Phillips regretted that the by-law to raise $600,000 for the Canadian National Exhibition failed to carry.

The report of the Secretary, Mr. J. M. McIntosh, supplemented the above reports, and outlined a year of progress and achievement.

The following were elected members of the Toronto Branch Executive Committee:—

P. C. Brooks—Canadian Fairbanks Morse Co., Ltd.
W. C. Coulter—Booth-Coulter Copper and Brass Co., Ltd.
John Firstbrook—Firstbrook Bros., Ltd.
E. Holt Gurney—Gurney Foundry Co., Ltd.
C. V. Harding—Toronto Carpet Mfg. Co., Ltd.
J. W. Hobbs—Consolidated Plate Glass Co., Ltd.
A. H. Jeffrey—Polson Iron Works.
W. C. Laidlaw—R. Laidlaw Lumber Co.
J. B. McCarter—The Eclipse Whitewear Co. of Toronto, Ltd.
J. P. Murray—Canadian Oil Producing and Refining Co., Limited, of Petrolea.
J. A. Northway—John Northway & Son, Ltd.
Thos. Roden—Roden Brothers.
John Turnbull—Nasmiths, Limited.
Trumbull Warren—Gutta Percha and Rubber Co., Ltd.
J. Westren—Dunlop Tire and Rubber Goods Co., Ltd.

The following representatives of Toronto Branch on the Executive Council were elected: A. R. Clarke, A. R. Clarke & Co., Ltd.; R. D. Fairbairn, R. D. Fairbairn Co., Ltd.; Thos. Findley, Massey Harris Co., Limited; John Firstbrook, Firstbrook Bros., Ltd.; S. Harris, Harris Lithographing Co.; C. B. Lowndes, The Lowndes Company, Ltd.; W. K. McNaught, American Watch Case Co. of Toronto, Limited; J. S. McKinnon, The S. F. McKinnon Co., Ltd.; Geo. B. Meadows, The Geo. B. Meadows Toronto Wire, Iron and Brass Works Co., Ltd.; T. F. Monypenny, Imperial Varnish and Color Co., Ltd.; W. C. Phillips, Phillips Manufacturing Co., Ltd.; Thos. Roden, Roden Brothers; T. A. Russell, The Russell Motor Car Co., Ltd.; W. B. Tindall, Parry Sound Lumber Co., Ltd.; and Geo. W. Watts, Canada Foundry Co., Ltd.



Mr. T. F Monypenny (Imperial Varnish and Color Co., Limited), Elected Vice-Chairman, Toronto Branch

ANNUAL MEETING OF THE MONTREAL BRANCH

Mr. Howard Murray Reviews Industrial Problems in his Valedictory--- Mr. T. P. Howard, the New Chairman

THE Montreal Branch held its annual meeting in the Canada Club rooms on May 5th, with a goodly number of members in attendance, Mr. Howard Murray presiding.

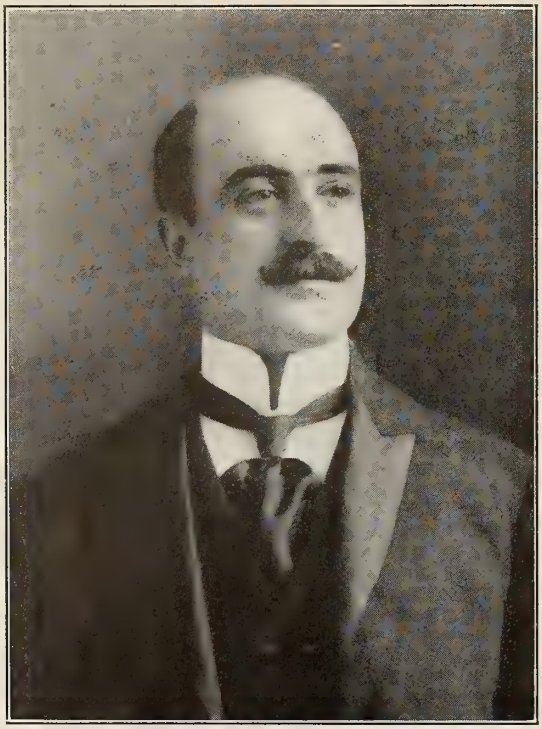
The reports of the various standing committees and the Secretary's report were received with much satisfaction. The report of the Legislation Committee especially showed that their work during this year, while very heavy, had been well and carefully done.

An increase in membership from 609 to 623 was shown, 28 new firms having been added and 14 dropped.

Minor changes in the Branch by-laws were submitted by the Branch Executive and approved. An amendment was also adopted to provide that the elective members of the Executive Council representing the Branch should be *ex-officio* members of the Branch Committee, but without the right to vote.

A careful and well reasoned address touching on matters before the Branch, and also on some of the wider questions affecting industrial interests in Canada, was made by Mr. Howard Murray in his valedictory as Chairman of the Branch. He submitted a very important suggestion with respect to civic government in Montreal, a problem which required the closest care and attention on the part of the manufacturers. After sketching briefly some of the municipal matters which had been dealt with during the year and the difficulty of attaining any satisfactory result, he continued:—

"In my opinion the present form of our civic government is quite unsatisfactory, although undoubtedly an improvement on the old method of government by aldermanic committees. At the next session of the Legislature a demand for a return



Mr. T. P. Howard (Phoenix Bridge and Iron Works, Limited)
Elected Chairman, Montreal Branch

to the old system will probably be made. Should we not consider with other business organizations the advisability of demanding the government of the city by a commission of not more than seven men elected by districts? I suggest this rather than election by the city at large, for a constituency of 135,000 is too great for an efficient choice and too expensive for an independent candidate."

Touching upon the matter of export trade, Mr. Murray said:—

"It is incumbent upon the manufacturers to look more seriously for business in other countries. Our home trade has heretofore had our attention to the exclusion of other markets. The time is rapidly coming when our economic position will be affected by this condition.

"Canada is facing for the next few years a condition of assimilation. We have to assimilate two new transcontinental systems. We have to absorb the condition brought about by over extension of the lands in the West. Many of our industries have been brought up to an output equal or perhaps more than equal to the demand in Canada. No one can doubt our ability to cope with these problems.

"There is no ground for pessimism. The backbone of our resources is our agricultural wealth. With good harvests vouchsafed us for a few years; with the increased acreage of which we are only now reaping the benefit accruing from the immigration of three years past, and with a sane attitude maintained among our business leaders and pubilc men, there can be no question of the outcome. Canada's credit in her borrowing market of England is good. The confidence in her ability to go forward has never been stronger. There is every room for optimism.

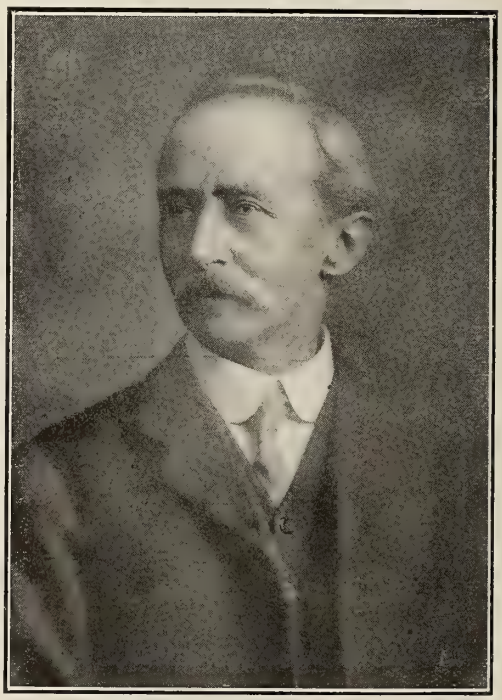
"Considering the broader matters in Canadian affairs, I should like to outline merely a sketch of immediately pressing questions which so radically affect the interests of manufacturers. We have gone through a trying year. This trying out process has had bad results for some, but cannot fail to better fundamental conditions. The recent disposition of several grave questions which had been for some time before the country has without doubt resulted in improvement. The decision in the long drawn out investigation into western freight rates by the Railway Commission; the questions arising out of the demands for changes in the customs tariffs on supplies and equipment used by the farming communities and on certain products of our iron and steel industry had been looked forward to with considerable anxiety. The removal of these questions from surmise and their crystallization into facts, clears the air to a considerable extent."

The Chairman and the Vice-Chairman for the coming year were both elected by acclamation, in the persons of Mr. T. P. Howard, Managing Director of the Phoenix Bridge and Iron Works, and Vice-Chairman for the past year; the new Vice-Chairman is Mr. T. H. Wardleworth, Director of the National Drug and Chemical Co., Ltd., and for the past two years Chairman of the Branch Municipal Affairs Committee.

The following were elected to the Executive Committee:—

Representing Montreal City:—

H. W. Aird, Canada Paint Co., Ltd.
Geo. F. Benson, Edwardsburg Starch Co., Ltd.
B. W. Coghlin, B. J. Coghlin Co., Ltd.
Alan J. Hart, Hart Manufacturing Co.
Percy S. McKergow, National Brick Co. of Laprairie, Ltd.
R. H. McMaster, The Steel Co. of Canada, Ltd.
J. C. Newman, The McClary Mfg. C.
S. J. B. Rolland, The Rolland Paper Co., Ltd.
Wm. Rutherford, Wm. Rutherford & Sons, Ltd.
Col. W. J. Sadler, Sadler & Haworth.
Geo. A. Slater, Geo. A. Slater, Limited.
W. H. Wyman, Belding Paul Corticelli, Ltd.



Mr. Theo. H. Wardleworth (National Drug and Chemical Co. of Canada, Limited)
Elected Vice-Chairman, Montreal Branch

Representing Affiliated Towns:—

H. T. Chalifoux, O. Chalifoux & Fils, Ltd., St. Hyacinthe, Que.
John Lowe, Jr., Montreal Cottons, Ltd., Valleyfield, Que.



Mr. Howard Murray (Shawinigan Water and Power Co.), Retiring Chairman, Montreal Branch

INDUSTRIAL PROGRESS IN HAMILTON

IN spite of the financial stringency and commercial depression, Mr. H. J. Waddie, retiring Chairman of the Hamilton Branch, C. M. A., was able to give an optimistic tinge to his address at the annual meeting of the Branch on April 30th.

After dealing with matters of local interest, he referred to such topics of general interest as cartage, housing, technical education, workmen's compensation, and the prospects of increased trade with South America. The manufacturers had won a victory over the railways on cartage, the housing problem was in the hands of a capable committee, and the Technical Education Committee was meeting with encouraging results.

The Hamilton manufacturers are to be congratulated on the prompt manner in which they dealt with hardships to the poor, arising from unemployment. "Owing to the unfortunate slackness of business," said Mr. Waddie, "a good deal of poverty was reported, and a special relief committee was formed in which your chairman and some other members of the council were included. A fund was raised and it is gratifying to report that conditions were found to be not nearly as bad as reported, and every known case of hardship was taken care of."

The following resolution was passed:—

"The Hamilton Branch, Canadian Manufacturers Association, hereby records its profound regrets at the death of Mr. James Alfred Publow as one who had been connected as a member of the Executive Council of the Association for many years, and mourns with the general business interests of Hamilton the loss sustained by his removal. In recording its high appreciation of Mr. Publow as a man and citizen the meeting desires to extend to the family of the deceased its sincere sympathy in this their time of sad bereavement."

A set of by-laws for the Hamilton Branch was passed at this meeting and forwarded to the head office for adoption by the Council at the coming annual meeting to be held in Montreal in June. Mr. G. M. Murray, General Secretary, was present and gave an address on Workmen's Compensation from its first stages to its final adoption by the Legislature.

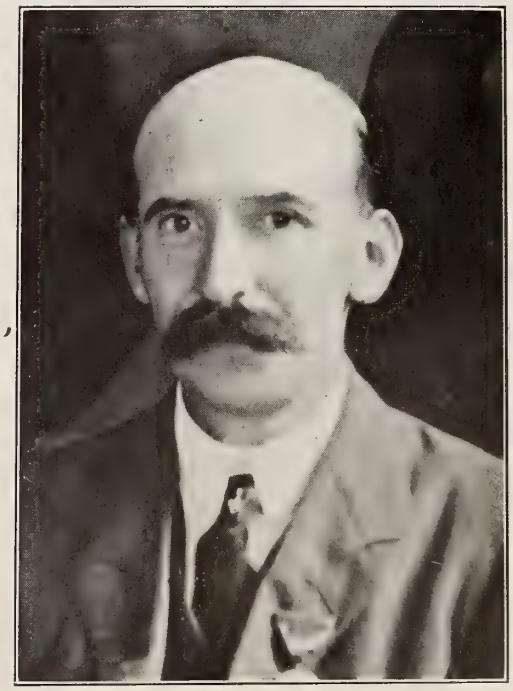
The membership report read by the new Secretary, Mr. H. E. Waterman, showed that the Branch includes 185 firms with 204 representatives, a gain of 6 firms and 8 representatives during the year.

The following officers were elected: Mr. W. H. Biggert, Chairman; Mr. R. R. Moodie, Vice-Chairman; Mr. H. E. Waterman, Secretary; Committee, Messrs. H. H. Champ, Geo. C. Coppley, R. R. Moodie, F. A. Merrick, Henry Bertram, J. A. McMahon, A. C. Garden, G. H. Douglas, K. Bethune, H. P. Hubbard; *Ex-officio* Members of the Committee, H. J. Waddie, Cyrus A. Birge, A. F. Hatch and R. Hobson.

GROWTH OF MANUFACTURING IN WINNIPEG

Optimism and Statistics Combine with Favorable Results at the Annual Meeting of the Manitoba Branch.

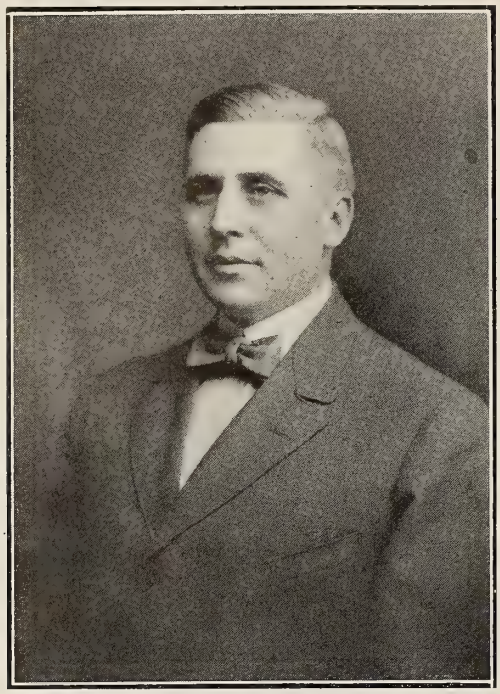
"IT is estimated in Winnipeg City alone that there is an investment of upwards of $50,000,000 in manufacturing plants and a pay-roll of 18,000 hands," said Mr. W. S. Fallis, Chairman of the Manitoba Branch at its Annual Meeting in Winnipeg on May 14th. In dealing with the advantages of Winnipeg as a site for manufacturing, he pointed out that, in spite of the low cost of electric power, the local plant showed a surplus of $60,000 for the year. Mr. Fallis reviewed the work done by the Branch. The Workmen's Compensation Act had been slightly amended so as to grant injured



Mr. H. J. Waddie (Canadian Drawn Steel Co., Limited), Retiring Chairman, Hamilton Branch

workmen compensation a week after the occurrence of an accident, and further changes were deferred, pending the enactment of the Ontario measure. A qualified factory

inspector had been appointed. A dangerous bill dealing with the sale of farm machinery had been withdrawn by the Legislature. Satisfaction was expressed with the freight



Mr. R. R. Moodie (J. R. Moodie & Sons, Limited), Elected Vice-Chairman, Hamilton Branch

rates decision, but efforts would be made to secure further adjustments, and the Dominion Government had been approached on the advisability of allowing homesteaders to secure their patents by stock-raising.

The report of the Secretary, Mr. G. F. C. Poussette, showed that the membership of the Branch had made a net gain



Mr. H. H. Biggart, (International Harvester Co.) Elected Chairman of the Hamilton Branch

during the year of some thirty members. It now stands at 260 members, of whom 235 are located in Winnipeg. In Saskatchewan, the membership increased from 8 to 31.

General satisfaction was expressed by the meeting with the excellent showing of the Branch for the year.

The elections resulted as follows:—

Vice-President—Manitoba, W. S. Fallis; Chairman, W. J. Bulman; Vice-Chairman, J. W. Ackland.

Representatives to the Executive Council—Messrs. L. L. Anthes, W. J. Boyd, T. R. Deacon, J. H. Parkhill, D. E. Spragge, and L. A. Race.

Executive Committee—Messrs. H. W. Billing, John Brockest, G. F. Campbell, Jas. M. Carruthers, M. F. Christie, R. W. Paterson, W. L. Helliwell, Chas. C. Harman, W. R. Ingram, Wm. Martin, jr., G. T. Mumford, and A. B. Stovel.

Inspection by Firemen.

Fire Commissioner Robert Adamson, of New York City, has ordered the reorganization of the work formerly carried on by the Fire Prevention Bureau, so that all business buildings in New York shall be inspected by uniformed firemen about once each month. This should result, not only in the lessening of the fire hazard because of their recommendations or complaints as to dangerous features, but should also make the firemen more efficient fire fighters, because of their greater familiarity with the buildings in which they may be called upon to extinguish fires.

MAKING PAPER PULP.

Government Will Test New Methods.

The Dominion Forestry Branch has spared no reasonable expense in equipping its Forest Products Laboratories, recently established at Montreal in co-operation with McGill University, with the most modern and efficient machines for testing the properties and possibilities of Canadian woods. Some native species of trees, little used until now, will be tested to see whether they are suitable for pulp and paper manufacture. For this purpose the largest non-commercial paper machine in the world will be installed. This has the unique feature of being adjustable to the manufacture of all grades of paper.

Detailed records of the process of manufacture of the different grades of paper will be kept. In this way Canadian pulp and paper manufacturers by adopting the same methods may achieve similar results.

Another very important feature of the work of these laboratories will be the investigating of the various methods of wood preservation. By such processes the life of railway ties, posts, poles and construction timber will be in some cases doubled. It is expected that it will be proved possible to use many of the most common Canadian woods for purposes to which, except for their non-durability, they are admirably adapted. Birch, for instance, if treated with creosote or zinc chloride, or with a little of both of these preservatives, makes an ideal railway tie or paving block, being cheap and also very resistant to the wear and tear of traffic.

Still another side of the work will be to develop chemical methods for utilizing the large percentage of wood-waste at present resulting from lumbering and milling operations. A circular will soon be issued from the Forestry Branch, Ottawa, treating of chemical methods of wood utilization. Another recent circular describes in detail the purpose of the laboratories and the work to be investigated. John S. Bates, B.A., B.Sc., the Superintendent of the new Forest Products Laboratories, is among the best authorities in America on the manufacture of pulp and paper, and under his efficient direction these laboratories will, no doubt, amply justify their establishment.

FIRE PREVENTION.

By Robert D. Kohn, President National Fire Prevention Association.

In this question of making fire prevention work effective the public has to be considered. Men are continuing to put up buildings badly constructed, dangerous to life and to other property; putting such structures up mainly through ignorance. The difference in cost of fireproof and non-fireproof construction has been gradually cut down. To-day for structures of any importance this difference is so small that the owner would be amply recompensed for the increased cost by the lower insurance rate. In buildings where the cost of fireproof construction is still prohibitive there are simple protection devices which can be introduced to make a non-fireproof building almost as safe as one of steel and concrete. It is of course in the great manufacturing plants of this country that the science of fire protection has been carried further along. The device of the fire division wall has been used for thirty or forty years in manufacturing buildings, but for some reason or other has hardly come into general use in any other class of structures. It is perfectly feasible to use such a division wall even in a large country house, a wall that would keep a fire in one part of the building from spreading to the other.

The study of fire protection is a study of hazards. One of our committee has recently divided these hazards under six headings, the first, the hazard of exposures. It does not suffice that a man keep his own house in order, build his building with all modern devices, but he must protect himself against his neighbors. In certain parts of Europe an owner is financially responsible for damage done to his neighbor's property by a fire that originates in his own house. Had we laws of that character established here, perhaps we would be more careful. As it is, the hazards of exposure are to be fought off by exterior walls, roofs, windows, glass, etc., that will resist danger from flame coming from the outside. In the second place, we have the hazard due to the construction of the building—the more or less inflammable nature of the materials and workmanship. In the third place, the hazard of height and area—a hazard decreased by the subdivision of areas by fire stops, fire walls, enclosures and subdivisions. As far as height is concerned, we all realize that a building above six stories is dependent on its own apparatus for the suppression of a fire. In the fourth place, there is the hazard due to the greater or less efficiency of the fire-fighting equipment of the building, fire hose, extinguishers, sprinklers, etc. Fifthly, there is the hazard due to the occupancy of a structure, the machinery, the character of the contents, whether they be combustible, whether explosive or of an inflammable nature, and whether or not the place is kept clean and in order; the housekeeping hazard in other words—one of the most important of all, what is called the "moral hazard" is a part of this. And finally, we have the effect upon the hazard of the character of public fire protection afforded by the city or community.

WORK FOR UNITED STATES EXPRESS COMPANIES.

From the decision of the United States Express Company to liquidate and retire from the field it may be inferred that there is no business left for the express companies, and that, therefore, in a little while, the parcel post will entirely supplant them. That is not the case. There is an increasing demand, especially in the areas where population is dense, for the rapid transportation of freight in less than carload quantities. The railroads are performing that service at a loss. The loss is owing partly to the fact that they are not properly equipped for the business, and largely to the fact that they do not control the collection of the freight. Thus, you see to-day small quantities of freight moving in forty-ton railroad cars at a loss, and in express company cars, on passenger trains, at a profit. If the express companies will take this field they will be able to relieve the railroads of a lot of unprofitable business, and at the same time so to control the collection of the tonnage as to eliminate the waste of moving it in haphazard quantities. Instead of small freight parcels reaching a certain point both via freight and express cars, they would go either one way or the other. It is a field which the railroads could occupy for themselves, but which the express companies could more easily command. They have the facilities for collecting and carting the goods; the railroads have only the facilities for moving it after it has been delivered to their platforms. The express companies should become freight forwarders, taking the whole contract, to pick up freight at the shipper's outgoing door, and to deliver it anywhere in the world.—*New York Annalist.*

TECHNICAL EDUCATION RELIEVES PROFESSIONS.

A recent issue of the Washington *Times* prints an interesting interview with Arthur D. Call, formerly superintendent of schools at Hartford, Conn., in which he emphasizes the need of vocational education:

"Present academic school courses tend to train boys for the professions. But figures of the Census Bureau show that but four per cent. of the men in this country are engaged in professional service. Thirty-six per cent. are farmers, twenty-four per cent. are engaged in manufacturing, and sixteen per cent. follow the trades.

"There, roughly speaking, is the outline of the relative provision that should be made in school courses. Now about eighty-five per cent. of school pupils are being trained for the jobs which represent four per cent. of the opportunities."

GERMANY AND STRIKE INSURANCE.

Germany has beaten us in many things—in strike insurance, for illustration. That business has been in successful operation in the Kaiser's dominion for upwards of ten years. No less than fifty companies are writing strike insurance in Germany. The figures indicate that the average duration of strikes has been reduced more than 66 per cent. since the time when these hard-headed Deutsch brothers of ours first began to insure against them. Obviously, the moral element was always present; it appeared useless to strike if it also appeared certain that the employer could not lose anything.—*How.*

CONTRIBUTORS TO CANADA'S WEALTH.

It is always of interest to compare the values of the products of each of the leading industries of a country. Everyone will tell you that Canada is immensely rich, but when you demand particulars, they are not so readily forthcoming as are general statements. Canada has not, as yet, made such statistical progress as to permit a close comparison of this kind to be made for a particular year. The following figures, however, are approximations of the value produced annually by our greatest natural resources, and by manufacturing:

Field crops and dairy produce	$604,800,000
Forest products	161,093,000
Minerals	102,300,000
Fisheries	29,965,000
Value added to raw products by manufacturing	563,630,000

TRANSPORTATION

By J. E. WALSH

THE great express companies of North America have recently issued a very valuable set of suggestions to shippers.

"Poorly packed shipments mean dissatisfied customers," say the companies. "Broken, soiled, torn, rumpled and incomplete merchandise is undesirable. Prompt claim adjustments, at best, conciliate but rarely satisfy. Commonsense packing is first aid to satisfied customers. Because Express is expedited service Express shipments should be so packed as to withstand reasonably quick handling. Successful shippers consider careful packing a duty owed their customers. Money saved by inadequate packing rarely equals profits lost through dissatisfied customers."

The following are the suggestions:—

1. Pack glass and fragile articles in wooden boxes or strong corrugated paper cartons, using plenty of excelsior or similar packing and marking "GLASS."

2. Obliterate old marks on boxes or wrappings—they frequently send packages astray.

3. Heavy packages of merchandise should not be wrapped in single thickness of thin paper and tied with light string, because the most careful handling will not then prevent delivery in torn and damaged condition.

4. Put your name and address on outside of package under the word "From." Put your name and address, and name and address of consignee inside the package. If outside mark is lost or destroyed this will prevent delay in delivery.

5. Avoid the use of tags if condition of package will permit marking with ink.

6. Castings and similar shipments should be marked with two or more strong tags attached by wire.

7. Raw furs or skins, if in hand-made bales, should be securely stitched in burlap or bag, and marked on a smooth wooden strip sewed flat to the bale. The oil in the skins destroys ordinary marking.

8. If shipment is C.O.D. (Bill with Goods) mark plainly "C.O.D. $....." Unless specific instructions to the contrary are given by the shipper, the charge for collecting and remitting the money will be collected from consignee. Prepare a C.O.D. Envelope to accompany the shipment.

Shipper's name and address must be plainly shown on shipment and on C.O.D. envelope. Write same information in receipt.

9. Write the value of shipment in proper space in the receipt. If the shipper does not declare and enter the value in the receipt the liability of the Company is limited to $50. The charge is the same when value is declared at $50 or less; an extra charge is made when the value declared exceeds $50.

10. Always show correct street and number for large cities.

11. Because of similar town names, the County should be shown. Abbreviations are misleading—spell out the names of Provinces and States.

12. Send money and jewelry in sealed packages through Money Department. Never in unsealed packages.

13. If charges are prepaid, mark the shipment plainly "PREPAID." If package is marked with a tag and also on package, or on more than one side of package, write the word "PREPAID" wherever the address appears, then which ever mark is looked at the prepaid notation will show and prevent collecting charges twice.

14. UNITED STATES BUSINESS.—If shipment is destined to the United States, Owner's or Agent's Export Entry in duplicate, in form as ordered by the Department of Customs, Canada, must be filled in and forwarded with the shipment. Duplicate certified invoice must also be furnished by the shipper. If the value exceeds $100, shipper must also furnish United States Consular invoices. Shipments of meat of all kinds must also be accompanied by Meat Inspection Certificates in triplicate (Dept. of Agriculture, Canada, F. of A. form 36). Mark the value plainly on outside of all shipments.

Express Companies generally furnish necessary blank forms on request.

BOSTON-HAVANA FREIGHT AND PASSENGER SERVICE.

The United Fruit Company has established a weekly freight and passenger service between Boston, Havana, Cuba, and Port Limon, Costa Rica.

The new 5,000 tons steamships *Carillo*, *Sixaola* and *Tivives* will be operated in this service, sailing from Long Wharf every Thursday at 10 a.m. on the following itinerary: Leave Boston Thursday, arrive Havana Tuesday; leave Havana Tuesday, arrive Port Limon Saturday; leave Port Limon Sunday, arrive Havana Wednesday; leave Havana Wednesday, arrive Boston Monday.

Cargo will be accepted for Havana, Cuba; Port Limon and San Jose, Costa Rica, and intermediate stations on the Northern Railway of Costa Rica, via Port Limon; from Port Limon for Havana and Boston and from Havana for Boston.

For rates and other information, apply to F. Field, Manager (Boston Division), Long Wharf, Boston, Mass; M. V. Rodney, General Freight Agent, 17 Battery Place, New York.

The service has been in operation since April 30th.

SHIPMENTS BY EXPRESS.

The Merchandise Receipt approved by the Board of Railway Commissioners for Canada for shipments by *express* contains the following clause:—

"The liability of the company upon any shipment is limited to the value declared by the shipper and embodied herein, or, *if less to the actual value* of the shipment at the time of the receipt thereof by the company, including the express and other charges, if paid, and the duty, if payable or paid and not refunded. If the skipper does not declare the value of the shipment, liability is *limited to fifty* dollars, or, if less, to the actual value of the shipment. *If the shipper desires the company to assume liability in excess of fifty dollars* an additional charge will be made, as provided by the classification."

Particular attention is directed to the two outstanding features of this clause: first, if a value is declared less than the actual value and less than fifty dollars the company cannot, in the event of loss, pay more; second, that, in any event, the company's liability (if the ordinary merchandise rates are paid) is only fifty dollars.

(*Continued on page* 1396.)

INSVRANCE

By WILLIS, FABER & CO., LTD.

THE Ontario Government has finally passed a Fire Marshal Bill, which should prove of material benefit to the community generally. The bill provides for the appointment of an officer to be known as Provincial Fire Marshal and also for the appointment of Deputy and Assistant Fire Marshals as may be deemed necessary. The duties of these officers will be principally to investigate the cause and circumstances of every fire occurring in Ontario; to make inspections with a view to enforcing fire prevention ordinances and building codes; to cause the prosecution of persons suspected of the crime of arson; and to compile statistics of every phase of fire loss occurring in the province. The position will be no sinecure and we believe that the good results which will follow the appointment of a capable officer will fully prove the wisdom of the enactment.

Fine the Careless.

Commissioner Latuippe of Montreal, when commenting on a fire which occurred at a store in that city, found the occupant guilty of gross negligence in having placed a table at no more than ten inches distant from a stove. The Commissioner urged the necessity of empowering the fire commission to impose a fine or other punishment on all those who, through carelessness, cause fires in their premises.

Kentucky Stops Insurance.

The State of Kentucky appears likely to learn what it means to be without fire insurance. A law was recently passed in that state increasing the tax upon fire insurance and authorizing a government bureau arbitrarily to cut down insurance rates on whatever risks they thought fit, whether such risks had proved profitable or unprofitable to the companies. This was a little more than the insurance companies could stand and they have withdrawn from the state. Kentucky is not the first state from which insurance companies have been compelled to withdraw temporarily, owing to hostile legislation. Probably, however, the disadvantages consequent upon such withdrawal will soon cause public opinion to demand a revision of the laws.

Boiler Inspection.

A bill has also been passed providing for the compulsory inspection of all boilers in use in Ontario, with the exception of those used in private residences. Under the new law, boilers in hotels, schools, theatres and other public buildings, the inspection of which has not hitherto been compulsory, are placed in the same position as boilers used in factories, shops and office buildings. The new legislation will probably cause a considerable increase in the business of companies transacting boiler insurance. It is not commonly realized that, of the premiums collected by boiler insurance companies, about eighty per cent. is spent on inspections. The object of boiler insurance is more the prevention of accidents than the payment for damage caused thereby.

Resolutions of the N. F. P. A.

The National Fire Protection Association, assembled in Chicago for its eighteenth annual meeting, calls once more upon all citizens to aid to the utmost its campaign against fire waste.

The destruction of life and created resources already suffered by the United States and Canada in the first four months of 1914 is deplorable evidence of the undiminished magnitude of this problem and the need for unceasing effort for its solution.

The inadequacy of water supplies in many cities, due to their rapid growth in area and population; the more common use of explosives and inflammable oils; the growing use for manufacturing of buildings never designed for that purpose, or inadequately provided with exits, and many other complex features of modern life are creating new fire hazards. These demand increased vigilance and initiative from those in authority.

The National Fire Protection Association advocates the following measures in its warfare against the needless sacrifice of human lives and property by fire:

(1) The encouragement of fire-resistive building construction through the adoption of improved building codes by all states, cities and towns. The inclusion in such codes of adequate rules for exit facilities, based on the occupancy, for all buildings.

(2) The adoption of laws or ordinances requiring the installation of automatic sprinkler systems as fire extinguishing agents in all factories, commercial establishments and city blocks. The adoption of ordinances requiring the construction of fire division walls, not only as a property protecting device, but as providing the best life-saving exit facility.

(3) The establishment by law of a fire marshal in every state, who shall be a trained man with trained assistants, competent to direct the work as statistician, educator and prosecutor.

(4) The investigation of the cause of all fires by public officials.

(5) The consolidation of all legal forces so as to provide for the systematic inspection of all buildings by local firemen, and technically trained building and factory inspectors so as to insure the vigorous enforcement of rules for cleanliness, good housekeeping, and the maintenance of safe and unobstructed exits, fire-fighting apparatus and other protective devices.

(6) The especial safeguarding of schools, theatres, factories and all other places in which numbers of people congregate or are employed.

(7) The vigorous state and municipal regulation of the transportation, storage and use of all inflammable liquids and explosives.

(8) A careful study of municipal water supplies, their adequacy and reliability with special reference to their adequacy in case of conflagrations.

(9) The universal adoption and use of the safety match.

(10) The education of children and the public generally in careful habits regarding the use of fire.

In the furtherance of these objects we appeal for the co-operation of all citizens. We ask them to help in the dissemination of our valuable literature and in the use of the standards of fire protection so carefully worked out by our committees and laboratories, to the end that the lives and substance of our people shall not continue to be dissipated by a reckless, preventable waste.

TARIFF

By J. R. K. BRISTOL

THE following orders and rulings have been issued recently by the Customs Department:—

Ship Stores.

The following articles have been added to the list of goods which may be delivered ex-warehouse without duty, as ships' stores, viz.: Fuel oil and gas oil.

Brokers' Fees.

The following Departmental instruction has been issued to Collectors of Customs re Brokers' fees, viz.:—

"Complaints having been made to this Department regarding exorbitant charges made at times by brokers for passing Customs entries for importations of small value, you are advised that in the view of this Department the charge for Customs brokerage should not exceed 50 cents when the value of the imported goods on the entry at Customs does not exceed $50. You are to impress this view firmly on Customs brokers at your port or outport."

Drawback for Home Consumption.

Ruled that under item 1009 drawback for home consumption shall not be payable until the articles specified are ready for the use for which they are designed. In the case of axes, hatchets and other edged tools, the articles are not to be regarded as ready for use until ground to an edge. In the case of hammers, rakes and hoes, adapted to be used with handles of wood—the metal parts of the hammers, rakes and hoes may be regarded as ready for use when finished ready to be fitted with handles of wood.

Board of Customs.

Cummer's patent ore dryer ruled to be dutiable under item 453. By the provisions of this item the duty payable under the British Preferential Tariff is 15%, and under the General Tariff 27½% ad valorem. This decision sustains precedents already established by the Board to the effect that under the Customs tariff of Canada, 1907, there is no authority for the free entry of ore dryers.

Dental switchboards ruled not to be free as "surgical instruments," but to be dutiable as electrical apparatus under item 453. By the provisions of this item the duty payable under the British Preferential Tariff is 15%, and under the General Tariff 27½% ad valorem.

Tweezers declared to be dutiable according to material, and not free as surgical instruments.

Aspirin held to be a proprietary preparation, which, being recognized by the French Codex as officinal, is thus excluded from tariff item 220 and dutiable under tariff item 711. By this item duty payable under the British Preferential Tariff is 15%, and under the General Tariff 17½% ad valorem.

In regard to *white cotton bobinet*, plain, in the web, dutiable under tariff item 574, the following Customs order has been issued, viz.:—

"It is held by the Department that white cotton bobinet, plain, whether shipped in boxes or otherwise, must consist of at least fifty square yards in each piece in order to be considered as 'in the web' and entitled to entry under the above tariff item."

The said item 574 is worded as follows:—

"White cotton bobinet, plain, in the web"—15% British Preferential and 25% General Tariff.

Steel Sheets coated on one or both surfaces with nickel and costing over 3½c. per lb. ruled to be dutiable under tariff item 386, free under the British Preferential Tariff, and 5% under the General Tariff.

Pyroxylin hat braid, flat, not over ¼ inch wide, and when imported by manufacturers of hats, for use only in the manufacture of hat bodies, ruled free under item 753.

Shaving machines for use in connection with dictating machines, ruled to be dutiable under item 453 at 15% under the British Preferential Tariff, and 27½% under the General Tariff.

Dictating and transcribing machines ruled to be dutiable under item 597 at 20% under the British Preferential Tariff, and 30% ad valorem under the General Tariff.

Rags prepared in balls for making rag carpets, ruled to be dutiable under item 533 at 7½% under the British Preferential Tariff, and 12½% under the General Tariff.

Hydro hair dryer and extractor ruled to be dutiable under item 468 at 10% ad valorem all tariffs.

Hollow drawn wire of silver not larger than No. 1 Standard Imperial gauge ruled to be dutiable under item 406 at 15% under the British Preferential Tariff, and 20% ad valorem General Tariff.

Peerless facing sand, so-called, described as a mixture of clay, sand, ground limestone and hematite, ruled under item 314 at 25% ad valorem General Tariff.

Schiffchenstick machines as illustrated and described, used for embroidery or knitting an ornamental design on plain bobinet fabric in the web, ruled under item 468 at 10% ad valorem all tariffs.

Cigar bands and labels (paper), question of prohibition under item 1209 Schedule C, ruled that cigar bands and labels may be imported for the present without indication thereon of the country of origin.

Special conduit paper per sample rolled in narrow strips, ruled to be dutiable at 25% ad valorem, General Tariff, item 197.

Compound, so-called, per sample, for use in the manufacture of conduit, ruled free under item 584 as being "asphaltum solid."

Nulomoline, produced from sugar cane, ruled to be dutiable as follows:—When liquid, item 140; when not liquid, item 141. Thus when liquid the duty is 50c per 100 lbs. General Tariff, and when not liquid the general tariff rate is 35% ad valorem.

Band Steel, bevelled or not, No. 14 gauge and thinner, ruled to be dutiable under item 384. By the provisions of this item the material is free under the British Preferential Tariff, and 5% ad valorem under the General Tariff.

"*Koffio*" (uncooked cereal, so-called) from Sleepy Eye Pure Food Co., Minneapolis, ruled to be dutiable under item 26 as coffee substitute, 2c per lb.

"*Kayao*," a vegetable stearine, ruled to be dutiable under item 711 at 15% British Preferential Tariff, and 17½% ad valorem General Tariff.

PARLIAMENTARY

By F. W. WEGENAST

THE Workmen's Compensation Act adopted by the State of New York a few months ago was modelled to some extent on the draft bill of Sir William Meredith as it stood at that time. The Meredith bill was radically amended before being passed, but there is sufficient similarity between the two measures to make the following comments on the New York Act of interest. The last issue of the New York *Market World and Chronicle*, a leading insurance journal, says:—

A Severe Arraignment.

The great State of New York has a workmen's compensation law; and this law is to go into actual operation in less than two months, i.e., on July 1st, 1914. Of the character of the law as a piece of social legislation, we have more than once felt obliged to express a deeply unfavorable opinion. Apart from the bare basis adopted for the compensation of industrial workers for the accidents befalling them in their occupations, the law is almost everything that a law ought not to be. It is loose, vague, impossible of precise interpretation, careless and slovenly in its prescriptions, full of gaps and inadvertencies, discriminatory as between classes of workers and classes of employers, inexact in its definitions, and filled with the seeds of future litigations, controversies and bitternesses. There is no way for a multitude of employers of labor in the State of New York to know whether they come under its provisions or not, and the courts must for years be full of cases in which employers, believing themselves to be protected from common law suits on the part of injured employees, find that they are not protected at all, though they have faithfully kept themselves insured; while other cases will abound in which employers, supposing themselves not to be included, and hence not carrying the proper insurance, will find that the courts hold that they should have regarded themselves as included and compel them to meet workmen's compensation claims for which, under employers' liability with its common law defences, they would not be liable. Injured workers, too, in a multitude of cases will have no way of ascertaining, except by resort to the courts, whether they can claim indemnification for their injuries under the workmen's compensation law, or must rely upon their rights at common law. The grist for the lawyers will be large; and not only the working class, but the community as a whole, will be shocked by glaring disparities of treatment as between the sufferers from industrial accidents. The window cleaner will fall from his high, narrow window sill, to be crippled or killed on the pavement below, and the elevator runner will be crushed in the wreck of his falling elevator, both without right of compensation for themselves or their families; but the paper-box maker or the cigar maker who cuts or bruises a finger severely enough to be away from work a fortnight will be compensated for his injury and loss of wages. These are but glaring instances of the gross inequalities and inequities of the statute; any number more can be given after a few moments' thought upon the diversities of human occupations in a great industrial and commercial state like New York and upon the dreadful insufficiency of the treatment of these diverse occupations in the statute. For the truth is that the framers of the law were hopelessly incompetent for their task, having no exact knowledge of the subject, but working in the realm of hearsay and vague impression and pure guesswork. . . . It is from this point of view that we are compelled to criticize it as sharply as we have. As it stands, it displays an almost total lack of that high competence in the matter which the citizens of New York have a right to demand from the public officers who are entrusted with the administration or supervision of a social change which must deeply concern all who employ and all who are employed in the State."

Criticism Applicable to Ontario.

In a large measure these criticisms are equally applicable to the Ontario Workmen's Compensation Act which is shortly to go into operation. While the New York Act is to operate in a state for the most part densely populated—the Ontario Act is to operate in a province which in many districts is very sparsely populated. The difficulty of supervising a larger numerical field in New York will be more than counterbalanced in Ontario by the larger area covered. The principles and policies laid down in both Acts which the administrators are to pursue are equally vague and difficult of comprehension.

What the outcome will be in New York and Ontario is equally doubtful. Instead of having as the result of years of investigation under the most propitious circumstances, a model Act, the Province of Ontario must content itself with an enactment which, instead of being a model, must from the beginning be an object of apology.

A Company License Case.

A recent case on the operation of the British Columbia Companies Act is that of White & Co. v. Donkin, decided by Mr. Justice Murphy. The plaintiffs were a company carrying on business, with head office in Toronto. The action was for damages on account of a shipment of halibut from Vancouver to Toronto, which the plaintiffs claim was in an unmarketable condition. The defendant claimed that the plaintiffs, not being registered or licensed in British Columbia, were precluded from bringing action in the British Columbia courts. The decision followed the interpretation given to the Act by the Supreme Court of Canada in the case of the John Deere Plow Co. v. Agnew, the judge finding that the company was not engaged in business in the province and was therefore not precluded from bringing proceedings in the courts.

RE LIABILITY INSURANCE.

The attention of Ontario manufacturers is called to the fact that, with the coming into force of the new Workmen's Compensation Act, the necessity for employers' liability insurance will cease. The date of the coming into effect of the Act is not yet fixed, but may be the 1st January, 1915. After the effective date of the Act, employers will have to pay premiums into the Government fund, which assumes all obligations to compensate injured workmen. Any employers' liability contracts taken out from now on should contain a clause calling for the cancellation of the contract and the refund of unearned premiums from the date when the new Act comes into operation.

HOW ONE COMPANY HAS ATTACKED THE ACCIDENT PROBLEM

I Organization (Value 45%)

A. Executives. **Attitude most important. Unless thoroughly imbued with safety idea efforts are bound to bear little fruit.**

B. Safety Committees.

1. Central.—Composed of General Attorney, Assistant General Attorney, Assistant General Superintendent, Plant Safety Engineer, Manager Safety and Relief Department, General clearing house for safety ideas and supervision of safety in all plants. Meets monthly, discusses the more serious accidents during the month and considers preventatives. Makes occasional tours of inspection of all plants.
2. Works or Plant.—Composed of Assistant General Superintendent, Safety Engineer and two or more department superintendents. Has general supervision of safety in plant. Meets once a month, reporting to central committee. Investigates in person and at once all serious accidents. Makes regular trips of inspection over plant. Safety engineer is executive secretary.
3. Departmental.—Composed of foremen and leading workmen. Makes monthly inspection, recommending to superintendent safety devices and plants. Copy of recommendations, with report of action taken thereon, goes to plant committee and is considered at regular meeting. This committee investigates all accidents, and reports to superintendent thereon, with copy to plant committee, telling the how of it and the how of prevention, also recommending discipline.

C. Inspections (General Conditions; Dangerous Practices; Safeguards)

1. Safety Engineer.—With his staff, continuously on the job, inspecting and supervising safety in all departments.
2. Safety Committees.—Department committees inspect own department monthly. Plant committee makes inspection of all departments monthly, checking up on department committees.
3. Special Committees called into being as occasion demands to investigate special conditions. Composed of experts in particular line.
4. Individual Workmen.—Each workman is supposed to constitute himself a committee of one to look after his personal safety and that of his fellows. For specially meritorious suggestions as to safety devices money prizes are paid.

II Education (Value 30%)

A. Rule Books.—Each workman on entering employ receives one of these.
B. Instruction.—Foreman instructs each new man thoroughly in duties of his position, particularly as regards safety. At the end of seven days he examines workman on rule book.
C Safety First Buttons.—Given to each man upon passing examination on rule book.
D. Prizes.—Given to individuals in departments as a reward for effecting reductions in ratio or number of accidents or in keeping number or ratio within prescribed limits.
E. Bulletin Boards.—Maintained at various points within and without plant. Here publicity is given to all serious accidents and lesson driven home. Records of various departments, photographs of record-making committees and individuals, etc., also bulletined. Shop opinion thus influenced and sentiment for safety built up.
F. Safety Dinners.—Promote fellowship spirit, increase enthusiasm for safety. Attended by department committees and foremen.
G. Safety Lectures.—Illustrated by motion pictures. Families may attend. Given also to school children in town or neighborhood, and thus the man is reached through those nearest and dearest to him by blood.
H. Discipline administered as recommended by department committees or safety engineers for gross negligence or open violation of rule book.

III Safeguards (Value 25%)

A. Installation

1. Inspections by safety engineers, to see that devices are properly fitted.
2. Drafting Room.—Draftsmen have safety standards to follow, and all drawings must bechecked for safety.
3. Purchasing Requisitions for new equipment must specify safety and are checked for this.
4. Construction Department.—Is required in all work about plant to follow specified be checked for safety.

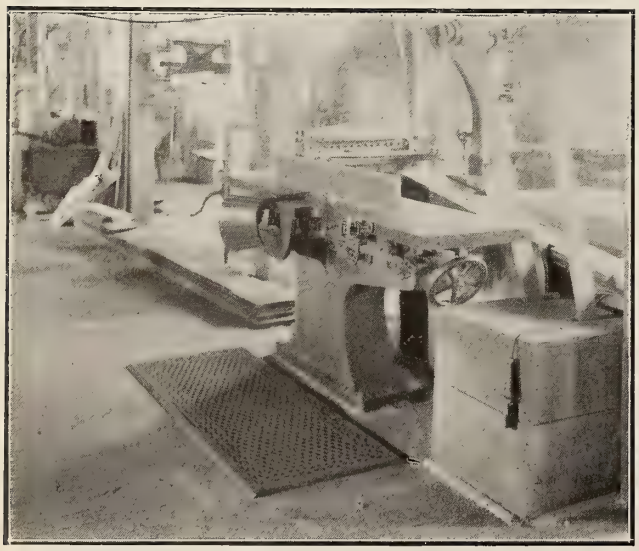
B. Maintenance

1. Education. As outlined under II.—Proper respect for safeguards can only be indicated by education.
2. Inspection.—By safety engineer, to see that guards are working properly and are being used as required.

C. Use of

3. Discipline.—Slackness with regard to safeguards or deliberate disregard of these are rigorously dealt with.

R. W. Campbell, President of National Council of Industrial Safety in "Factory."



hotograph shows Cutter Guard and Belt Guard on Jointer in Wood-working Department; also Rubber Mat on Floor to Prevent Operator from Slipping
—Courtesy of the Burroughs Adding Machine Co.

A WELL-GOVERNED CITY.

The present city council during its two years in office has done a good deal of permanent street paving, improved the street lighting in the business centre, and improved also the water distribution service. One of the great advantages of the new system is that the commissioners meet daily at the city hall, and the citizens are enabled through the press to keep in constant touch with the progress of civic affairs, and whenever any citizen has a complaint or a suggestion to make he knows exactly where to find the responsible head of the department with which he wishes to communicate.

DEATH OF WILLIAM HARRIS.

Mr. William Harris, founder of the Harris Abattoir Company, and one of the leading men identified with the live stock industry of Canada, died at his home, 450 Pape Avenue, Toronto, on May 11th, in his 67th year, after an illness of several months. Death was due to heart trouble. The deceased was a man of great business ability and was favorably known throughout the entire meat trade of Canada.

Tariff of British South Africa.

The Commissioner of Customs, British South Africa, has instructed Collectors of Customs under his jurisdiction that importations which are not covered by regular invoices showing the "home" consumption values for the goods may only be cleared on deposit of a sum of money sufficient to cover duty on a 25% increase of the invoice prices to the importer—pending the production of invoices showing the required particulars. Instructions have also been issued that when a purchase is made by the importer at an inland point in the country of export the carriage charges to the port of shipment, if shown separately on the invoice, may be deducted for the purpose of arriving at the "true current value as defined by law." The onus of proving the true place of purchase and the correctness of the freight deduction will rest with the importer. Ordinarily the place where the invoice is made will be taken to be the place of purchase.

The Trade Commissioner for Canada resident at Capetown reports a considerable demand for organs as made by Canadian instrument manufacturers. He states that there is a large demand there from general dealers for an organ suitable for back country districts; and that such an organ should be showy in style, with beveled mirror in centre of top part and equipped with as many stops as possible, and costing c.i.f $45 to $47.50. The addresses of South African enquirers for such instruments can be obtained from the Trade and Commerce Department, Ottawa, or from the C.M.A., Toronto.

Organs (except church organs) of Canadian manufacture, when covered by regular invoices, are subject to 12% duty under the South African Tariff.

Export trade from Canada is facilitated by Canadian Customs regulations under which a drawback is obtainable of 99% of the duties paid on imported materials used in Canada in the manufacture of articles for export. Any manufacturer can easily comply with these drawback regulations. Members desiring information on the procedure necessary to obtain this drawback on exports are invited to correspond with the Association's Tariff Officer.

Australia.

The Australian Tariff Commission is now taking evidence with the view to a General Tariff Revision next session. It is to be hoped that the Tariff adjustments when made will include those Preferential arrangements between Canada and Australia for which the Minister of Trade and Commerce is striving so earnestly.

GERMAN COLONY FOR WESTERN CANADA.

A German syndicate has purchased 10,000 acres of land near Bassano, Alta., and will locate 100 settlers immediately. Many of these settlers belong to the German nobility, but have been forced, through lack of money, to undertake pioneer life.

The *Vancouver World* publishes the following interview with the manager of the syndicate:

"Many of the colonists went to Canada some weeks ago, and are now on the place. I am leaving to-morrow with a few others. We are buying most of our agricultural machinery and tools in Canada, though we have brought over one big German tractor plow.

"We do not intend to stop with farming. In fact, we have plans for starting industries allied with farming. As soon as the first experiment demonstrates its success, we shall enlarge our industries. At present a big distillery is in contemplation, and a yeast factory as well, so that the undertaking will be industrial as well as agricultural."



Our Courted Lady

—Beck's Weekly.

TORONTO'S TWO MILLION DOLLAR SCHOOL.

The new Central Technical School, Toronto, which is now in course of construction, and is reported to be making excellent progress, will, by the time it is completed, cost about two million dollars. A summary of Principal McKay's report itemizes the cost as follows:—

Site	$228,419
Selection of architects	3,020
Building	1,411,217
Equipment and furnishing	284,395
Total	$1,927,052



Nothing Doing

—Toronto World.

Fresh-Water Fish.

In addition to this immense salt-water fishing area, we have in our numerous lakes no less than two hundred and twenty thousand square miles of fresh water, abundantly stocked with many species of excellent food fishes. In this connection, it may be pointed out that the area of the distinctly Canadian waters of what are known as the Great Lakes—Superior, Huron, Erie and Ontario—forms only one-fifth part of the total area of the larger fresh-water lakes of Canada.

The fisheries of the Atlantic Coast may be divided into two distinct classes: the deep-sea, and the inshore or coastal fisheries.

Deep-Sea Fisheries.

The deep-sea fishery is pursued in vessels of from forty to one hundred tons, carrying crews of from twelve to twenty men. The fishing grounds worked on are the several banks, which lie from twenty to ninety miles off the Canadian coast. The style of fishing is that of "trawling" by hook and line. The bait used is chiefly herring, squid and capelin; and the fish taken are principally codd, haddock, hake, pollock and halibut.

The inshore or coastal fishery is carried on in small boats with crews of from two to three men; also in a class of small vessels with crews of from four to seven men. The means of capture employed by boat fishermen are gill nets, hooks and lines, both hand-line and trawl; and from the shore are operated trap-nets, haul-seines and weirs. The commercial food fishes taken inshore are the cod, hake, haddock, pollock, halibut, herring, mackerel, alewife, shad, smelt, flounder and sardine. The most extensive lobster fishery known is carried on along the whole of the eastern shore of Canada, whilst excellent oyster beds exist in many parts of the Gulf of St. Lawrence, notably on the north coast of Prince Edward Island and in the Northumberland Strait.

The salmon fishery is, of course, the predominant one on the Pacific coast; but a very extensive halibut fishery is carried on in the northern waters of British Columbia in large, well-equipped steamers and vessels. The method of capture is by trawling, dories being used for setting and hauling the lines, as in the Atlantic deep-sea fishery. Herrings are in very great abundance on the Pacific coast, and provide a plentiful supply of bait for the halibut fishery.

In the inland lake fisheries, the various means of capture in use are gill-nets, pound-nets, seines and hook-and-line to a great extent. The principal commercial fishes caught are whitefish, trout, pickerel, pike, sturgeon and fresh-water herring—the latter in the Great Lakes of Ontario only.

BIGGER SUBSIDY FOR DRYDOCKS.

With the object of giving additional encouragement to the construction of drydocks in Canada, Hon. Robert Rogers, Minister of Public Works, has given notice of the following proposed resolution: "That it is expedient to provide that the subsidy payable in respect of first-class drydocks under section 8 of the Drydocks Subsidies Act be increased from three and one-half per cent. to four per cent. per annum of the cost of the work as fixed under the act, during a period not exceeding 35 years."

BARRING ASIATICS FROM CANADA.

Practically all Asiatics have been barred from entering Canada by a recent order of the Dominion Government.

It will be remembered that the entry of laborers, skilled and unskilled, and artisans into British Columbia was prohibited for a period of six months. At the expiration of this time the order was extended for another six months, or until September 30. This order keeps out all labor under the head named, both white and yellow, but there was some misapprehension as to how it would affect Chinese who were prepared to pay the head tax of $500.

Under the new ruling Chinese will not be allowed in at all except certain classes, such as tourists, students or merchants. The possession of $500 for the head tax will avail them not at all, and the bars will be as rigidly enforced against Chinese, Japanese and Hindus as against white labor.

The Hindus are already almost barred under orders-in-council, which call for direct route and the possession of $250.

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of May, 1914.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload.)

Grand Trunk Railway.

C.R.C.	R.R.No.	Effective.	Description.
E 2917 cancels E 2766	C.U. 83 cancels C.U. 76	May 18-14	Slag C. L. Black Rock to G. T. Stations.
E 2914	C.I. 153	Apr. 22-14	Iron and steel commodities between Intercolonial stations and from St. Paul, Dominion and Lachine to I. C. R. stations. Reduction.
Sup. 11 E 2681	Sup. 11 I 140	Apr. 28-14	Import traffic, Montreal Harbor to stations on G. T. and conections. Reduction.
Sup. 2 E 2779	Sup. 2 C.P. 102	Jun. 1-14	Paper commodities between G. T. stations and to connecting lines. Advance. Reduction.
E 2915	C.I. 154	Apr. 22-14	Iron and steel commodities between Intercolonial Ry. stations, also from St. Paul, Dominion and Lachine to I. C. R. stations. Reduction.
Sup. 23 E 1985	Sup. 23 E 37	May 27-14	Export traffic G. T. stations to Boston, Portland, Halifax and St. John. Advance. Reduction.
E 2904 cancels E 1166	A 17 cancels A 5	May 4-14	Classes between G. T. stations and stations on the Brockville, Westport and Northwestern Ry. Advance.
E 2906	C.Y. 83	Apr. 15-14	Commodities between Montreal and stations on Q., M. & S. Ry. New rates.
Sup. 166 E 2552	Sup. 166 C.D. 65	Apr. 13-14	Building material between G. T. stations. Reissue.
E 2903	C.Y. 32	Apr. 15-14	Commodities Montreal to points on Q., M. & S. Ry. New rates.
E 2900 cancels E 2890	C.P. 109 cancels C.P. 108	May 11-14	Paper C.L. G. T. shipping stations to points in U.S. Reduction.

HYDRO LAMPS

NOT the least of Hydro's services to the citizens of Toronto is the sale of high-grade tested Tungstens at actual cost. If your home, your office, your factory is not equipped, why not order a trial shipment. You'll see the big satisfaction there is in getting three times the light with the same current that an ordinary carbon lamp gives — and at prices that put money back in your pocket.

WATTS	Candle Power	PRICE	KIND
25	20	.27	Tungsten
40	32	.27	"
60	48	.35	"
100	80	.65	"
150	120	1.05	"
250	200	1.50	"
500	400	3.45	"

All Styles and Sizes, Clear and Frosted

The New Nitrogen Lamp

Hydro's new "little brother to the sun" is making a hit on account of its marvellous brilliance and its low current-consuming power. Uses only ½ watt per candle power as against the usual 1¼ watt per c.p. in Tungstens. Invaluable for large shops, yards, etc., where widespread light of the greatest intensity possible is desired. Come in and see them.

350	watts	750	c.p.	$ 8.00
500	"	1,000	"	"
750	"	1,500	"	"
1,000	"	2,000	"	"
1,500	"	3,000	"	$11.00

TORONTO HYDRO-ELECTRIC SYSTEM

226 YONGE ST. PHONE ADELAIDE 2120

Grand Trunk Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 22 E 2855	Sup. 22 C.Y. 31	Apr. 14-14	Iron or steel turnings, borings, etc., Montreal to Belleville 9c per 100 lbs. Reduction.
Sup. 23 E 2855	Sup. 23 C.Y. 31	Apr. 12-14	Pipe, wrought iron, C. L. Welland to Point Edward, 13c. per 100 lbs. Reduction.
E 2907 cancels E 2872	C.R. 168 cancels C.R. 157	May 9-14	Warehouse storage charges.
Sup. 21 E 2855	Sup. 21 C.Y. 31	Apr. 20-14	Commodities between G. T. stations and from and to connecting lines. Reduction.
Sup. 25 E 2855	Sup. 25 C.Y. 31	Apr. 15-14	Iron and steel forgings, Welland to Walkerville. Reduction.
Sup. 17 E 2684	Sup. 17 C.U. 72	May 15-14	Commodities between G. T. stations.
Sup. 24 E 2374	Sup. 24 C.R. 111	Apr. 20-14	Reshipping, stop-off and special arrangements. Reductions.
Sup. 11 E 2524	Sup. 11 C.U. 67	June 1-14	Commodities between G. T. stations. Advance. Reduction.
E 2911 cancels E 2853	S 98 cancels S 95	May 21-14	Local switching service at G. T. stations. Reduction.
Sup. 9 E 2696	Sup. 9 I 144	Apr. 20-14	Import merchandise, Portland to G. T. stations.
Sup. 6 E 2958	Sup. 6 C.U. 75	May 13-14	Commodities Buffalo, Black Rock and Suspension Bridge to G. T. stations.
Sup. 8 E 2664	Sup. 8 B 24	Apr. 20-14	Class rates between Buffalo, Black Rock, Suspension Bridge and stations in Canada. Reissue.

Delaware & Hudson Company

Sup. 10 1127	Sup. 10 F.D. 6246	May 28 14	Commodities D. & H. stations to points on G. T. Ry.

Canadian Pacific Railway.

Sup. 9 E 2560	Sup. 9 E 2167	Apr. 28-14	Import merchandise, St. John and West St. John to stations in Eastern Canada. Reduction. Reissue.
Sup. 17 E 2332	Sup. 17 E 1932	Apr. 30-14(R) May 27-14 (A)	Export traffic C. P. stations to Montreal and Quebec. Advance. Reduction.
E 2787 cancels E 2438	E 2409 cancels E 2 P38	May 30-14	Car demurrage rules and regulations.
E 2789 cancels E 2786	E 2412 cancels E 2408	Apr. 30-14	Class rates between C. P. and Algoma Eastern stations. Reduction.
Sup. 9 E 1332	Sup. 9 E 904	May 7 14	Iron commodities between C. P. stations Reissue. Reduction.
Sup. 11 E 2548	Sup. 11 E 2262	May 4-14	Switching, interswitching and absorption of switching. Reissue. Reduction.
Sup. 5 W 1915	Sup. 5 W 3101	Various dates	Commodities between C. P. western line stations.
Sup. 15 W 1739	Sup. 15 W 2697	Apr. 24-14	Lumber, lath, etc., between Vancouver, Westminster and B. C. coast points; also E. & N. and B. C. Electric points to C. P. stations in B. C.

Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 20 W 1428	Sup. 20 W 2141	May 1-14	Sugar and syrup C. L. Vancouver to stations east thereof.
Sup. 30 W 1769	Sup. 30 W 2772	May 1-14	Grain and grain products C. L. stations in Alta, Sask., and Man. to Westfort, Port Arthur and Fort William.
Sup. 15 W 1853	Sup. 15 W 2980	May 1-14	Calgary, Saskatoon, Regina, etc., to C. P. western line stations. Class rates (Town Tariff).
Sup. 12 W 1854	Sup. 12 W 2975	May 1-14	Classes and commodities Port Arthur, Fort William and Westfort to stations on C. P. western lines.
Sup. 25 W 1691	Sup. 25 W 2597	May 1-14	Lime, plaster, etc., between stations on C. P. western lines.
Sup. 40 W 1720	Sup. 40 W 2650	May 1-14	Classes and commodities Winnipeg, Brandon and Portage la Prairie, etc., to C. P. western line stations.
Sup. 11 W 1854	Sup. 11 W 2975	Apr. 29-14	Classes and commodities between Port Arthur, Fort William, Westfort and stations on C.P. western lines.
Sup. 28 W 1615	Sup. 28 W 2443	May 1-14	Lumber, shingles, etc., C. L. from B.C. coast and interior mills to stations in eastern Canada.
Sup. 25 W 1715	Sup. 25 W 2640	May 1-14	Classes (Town Tariff) Vancouver, Victoria and Westminster, B. C., to C. P. stations in B. C., Alta. and Sask.
Sup. 18 W. 1797	Sup. 18 W 2850	Various dates	Commodities from C. P. western line and Canadian Northern stations to points in eastern Canada.
Sup. 6 W 1915	Sup. 6 W 3101	Various dates	Commodities between C. P. western line stations.
Sup. 26 W 1806	Sup. 26 W 2866	May 5-14	Lumber, shingles, etc., coast and interior mills to stations on C.P., C.N. and G.T.P. railways.
Sup. 7 W 1626	Sup. 7 W 2475	May 4-14	Sugar and syrup, Vancouver to stations on Can. Northern Ry.
Sup. 7 W 1915	Sup. 7 W 3101	Various dates	Commodities between C. P. western line stations.
Sup. 21 E 2529	Sup. 21 E 2133	May 25-14	Commodities C. P. stations to points in U. S. Advance. Reduction.
Sup. 8 W 1879	Sup. 8 W 3026	Various dates	Classes and C.L. commodity rates Brandon, Portage la Prairie, Winnipeg, Port Arthur, etc., to B. C. coast points. Reissue. New rates
Sup. 3 W 1885	Sup. 3 W 3045	Various dates	Commodities C.P. western line stations to Montreal, Quebec W., St. John and Halifax for export. Reissue. New rates.
Sup. 26 E 2359	Sup. 26 E 1959	Apr. 6-14	Commodities, paper, between C. P. stations and to and from connecting lines. Advance. Reduction .

During 1913, 100 New Factories were Erected in

TORONTO

There is Room for 1,000 More

IN THE

TORONTO HARBOR INDUSTRIAL DISTRICT

SITUATED ON

Toronto's Central Waterfront
Three Railways
Three Miles of Dock
Free Railway Sidings
Free Interswitching

Niagara Power at "Beside the River" Prices

The Toronto Harbor Commissioners

Alex. C. Lewis, Secretary

50 BAY STREET - TORONTO, CANADA

(*Continued from page* 1386.)

As merchandise rates are based upon a valuation of fifty dollars, the company's liability is the same up to that amount. Therefore, a declaration of less than the actual value does not secure a lower rate. On the other hand, if a shipper desires a carrier to assume liability in excess of fifty dollars, he should declare the amount (and then only) that he wishes the company to assume. In such event an additional charge will be made as follows:—

"When the merchandise rate is $1.00 or less per 100 lbs., 5 cents for each $100 value or fraction thereof;

"When the merchandise rate exceeds $1.00 and not more than $3.00 for 100 lbs., 10 cents for each $100 value or fraction thereof;

"When the merchandise receipt exceeds $3.00 and not more than $8.00 for 100 lbs., 15 cents for each $100 or fraction thereof;

"When the merchandise rate exceeds $8.00 for 100 lbs., 20 cents for each $100 or fraction thereof."

Of course there is the option of placing the additional risk with some reliable insurance company, a precaution which is taken by many shippers of valuable articles.

It is, therefore, of prime importance that express receipts should be made so as to indicate the service wanted from the carrier. The following description of a case illustrates the importance of this point: "By mistake a shipper of a package valued at $60,000 declared the value on the express receipt, it having been insured with an insurance company. The express company, not being aware of this, carried out its instructions and charged according to the valuation declared. As a refund would be illegal the shipper is out of pocket those charges."

DECREASE IN LABOR UNREST.

According to the record maintained in the Department of Labor a feature of the labor situation during April was the marked decrease in the number of strikes and lockouts as compared with the corresponding month of last year. During April, 1913, twenty-five disputes commenced, which, together with the eight previously in existence, affected 8,430 employees and caused time losses of 112,446 working days. The record for April, 1914, shows only ten disputes in existence (four new ones), affecting 1,297 employees and causing time losses of about 25,000 working days. Industrial conditions were not seriously affected by trade disputes in any particular locality, the strike of coal miners on Vancouver Island being the only disturbance affecting a considerable number of working men. Five disputes remained unsettled at the end of April.

GENERAL PRICES STEADY.

The Department of Labor's index number of wholesale prices stood at 136.8 for April as compared with 136.7 for March and 136.3 in April, 1913. Eggs and butter declined steeply, grains averaged lower, cattle and beef were easier, hogs, potatoes, sugar and molasses declined, while some metals were lower. Fodder, canned salmon, onions, flour, oatmeal, raw cotton, and horsehides advanced, and raw furs averaged higher.

In retail prices a general decline in butter and eggs was the chief feature. Beef advanced in several localities, but veal, pork, sugar and coal and wood tended downward.

CONDENSED ADVERTISING

GENERAL FOREMAN WANTED.

Man familiar with foundry, machine-shop and boiler-shop work. State age, experience and salary expected. Address Box 1, "Industrial Canada," Toronto.

TRANSPORTATION MANAGER AVAILABLE.

Scotchman with twenty years' experience on British railways will accept position as transportation manager with Canadian manufacturing or business firm; or will represent commercial interests of Canadian firms in Great Britain. Best references and connections. Box 2, INDUSTRIAL CANADA.

ELECTRIC STEEL CASTINGS

We can supply

Carbon Manganese Alloy Steel Castings Forging Ingots, Etc.

Write for prices and particulars

The Electric Steel and Metals Company, Limited

WELLAND - - - - ONTARIO

THE BOOTH-COULTER COPPER & BRASS COMPANY, LTD.

SHEETS TUBES COPPER & BRASS AND RODS

SPECIAL SIZES CUT TO ORDER FROM LARGE STOCK—PROMPT SHIPMENT

115-121 SUMACH STREET - - - TORONTO, CANADA

TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

46. **Linseed Oil.**—A manufacturers' agent in Scotland reporting a demand for linseed oil, makes inquiry for addresses of Canadian manufacturers.

47. **Oak.**—A London firm wishes to be placed in correspondence with Canadian sawmills who can supply oak to be cut to specification (metric dimensions) for direct shipment to France.

48. **Flour.**—Seven firms in South America desire to enter into communication with Canadian exporters of flour.

49. **Condensed Milk.**—Two firms in South America inquire for Canadian exporters of condensed milk.

50. **Nails and Wire Nails.**—Four firms in Columbia, South America, inquire for Canadian nails and wire nails.

51. **Soap.**—A firm in Columbia, South America, desires to hear from Canadian exporters of soap.

52. **Chairs.**—Eight South American firms inquire for Canadian-made chairs.

53. **Shovels and Spades.**—Several South African firms, inquiry for Canadian shovels and spades.

54. **Hardware.**—Firms in South America, inquiry for general hardware.

55. **Fencing, Wire and other.**—Several South American firms, inquiry for fencing and wire fencing.

56. **Desks.**—Several firms in South America, inquiry for desks, roll-top and typewriter.

57. **Agricultural Implements and Machinery.**—Several firms in South America make inquiry for the above.

58. **Machinery.**—Several South American firms inquire for machinery.

59. **Windmills.**—A South American firm makes inquiry for windmills.

60. **Tractors.**—A South American firm makes inquiry for tractors.

61. **Dairy Machinery.**—Two South American firms inquire for dairy machinery.

62. **Belting.**—Four South American firms inquire for belting.

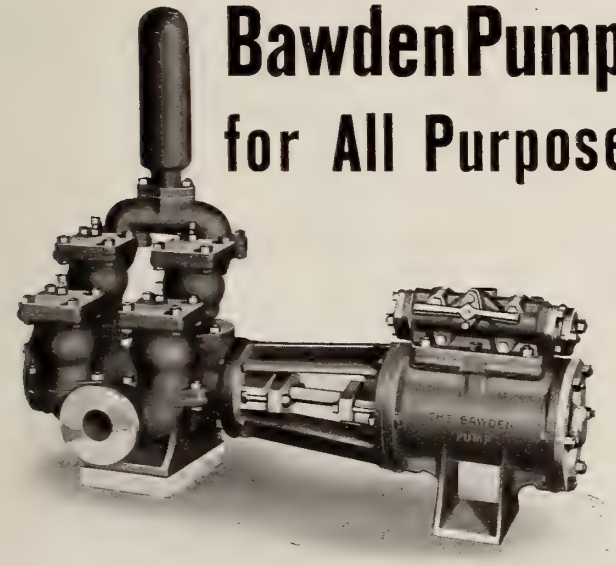
63. **Box Boards.**—A Lancashire timber merchant is open to receive prices from Canadian manufacturers of boxboards in the following sizes: 3 ft. x 5-8 in. x 8 in. (sides); 1 ft. 4 1-2 in. x 1 in. x 8 in. (end); 8 in. x 1 1-2 in. x 1 1-2 in. (corners); 3 ft. x 3-8 in. x 6 in. (lids and bottoms); 1 ft. 6 in. x 3-8 in. x 3 in. (battens across lid).

64. **Oak Spokes.**—A London firm of timber importers desires the addresses of Canadian manufacturers of oak spokes (English pattern).

65. **Silos and Windmills.**—A London firm desires to be placed in communication with Canadian manufacturers of silos for storing ensilage or fodder; and also of windmills for driving pumps, both for direct shipment to South Africa.

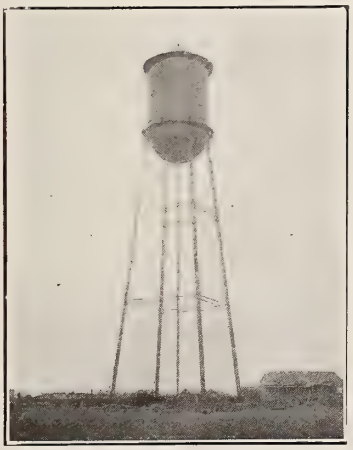
66. **Metal Ceilings.**—Several South American firms inquire for metal ceilings.

Bawden Pumps for All Purposes



Never Need Adjusting
Cannot Short Stroke
Use Less Steam
No Packing in Steam End
Cannot Get Air Bound
Nothing to Get Out of Order
All Faces Machined

Bawden Machine Co., Limited
1133 STERLING ROAD, TORONTO, CANADA



Canadian Plant
Chicago Bridge & Iron Works
Bridgeburg, Ontario

ELEVATED STEEL TANKS AND STANDPIPES

For Municipal, Railroad and Factory Service

We also build Oil Tanks, Coaling Stations, Bridges, Turntables, Buildings and Structural Material. Write for illustrated Calalogue No. 25.

OFFICES:
BRIDGEBURG, ONT. Can. 121 Janet St
Chicago, Ill. 1316 W. 105th St.

SHOPS:
BRIDGEBURG, ONTARIO
Greenville, Pa (Pittsburg District)
Chicago, Illinois

THE "EMPIRE" BRANDS

of Gypsum products have larger sales than other wall plasters because of their superior quality.

Years have only given them an essential place in building construction. You cannot afford to overlook the "EMPIRE" brands for your next building.

Write for Specification Booklet.

MANITOBA GYPSUM CO., LIMITED
WINNIPEG, MAN.

THE MERCHANTS' BANK OF CANADA

FIFTY-FIRST ANNUAL MEETING

The Annual Report

The Report of the Directors was read by the President, as follows:—

The Board have much pleasure in submitting the result of the year's business, closing with the 30th April last. On an average capital and rest of $13,348,100, the Bank has earned 9.13%, which is a little lower rate than a year ago. Meantime, our capital stock has been further augmented by the disposal of the unsold shares, making the dividend disbursements somewhat greater. In the Profit and Loss Statement you will observe $135,000, applied in reduction of the sum representing the bond and securities, which during the year have suffered a fall in price. To bring them to their market value the Board have authorized the writing of them down by that sum.

I have great pleasure to-day in congratulating the shareholders upon a very notable event in the history of the Bank —the fiftieth anniversary of its establishment—and also upon the happy attainment of the goal of the Board's ambition for many years back, namely, the placing of the Reserve Fund upon an equality with the paid-up Capital. This consummation has been at length attained. The paid-up Capital is now $7,000,000 and the Reserve Fund $7,000,000, as you will see from the statement placed before you.

During the past year we have opened branches at the following points:—

In Quebec: Chateauguay Basin, Huntingdon, Maisonneuve Montreal, St. Denis Street, Ormstown and Vaudreuil. In Ontario: Bronte, Clarkson, Hamilton East End, Sarnia and St. Catharines. In Alberta: West Edmonton, Raymond and Rimbey. In Saskatchewan: Eastend, Forres, Humboldt Kelvinhurst, Limerick and Shaunavon. In British Columbia: Ganges Harbour, Oak Bay and Victoria North End. In Manitoba: Starbuck, and in Nova Scotia, New Glasgow.

And we have closed the following offices:—In Alberta: New Norway, Pincher Station and Walsh, and in Ontario, Sandwich.

All the branches of the Bank have been inspected during the year.

The Board will to-day ask the shareholders to appoint Auditors for the coming year, in accordance with the Bank Act.

The requirements under the new Bank Act covering the preparation of the Annual Statement, together with the growth of the Bank, make it desirable that more time be given for this work. We find it, therefore, necessary, that the date of the Annual Meeting be put forward somewhat. The third Wednesday in May, following so nearly the close of books on 30th April, does not allow sufficient time. The Board ask you to sanction a change of date to the first Wednesday in June, which will meet requirements.

All of which is respectfully submitted.

H. MONTAGU ALLAN,
President.

The Financial Statement.

Statement of the Result of the Business of the Bank for the year ending 30th April, 1914:

The Net Profits of the year, after payment of charges, rebate on discount, interest on deposits, and making full provision for bad and doubtful debts, have amounted to		$1,218,694 45
Premium on New Stock		180,825 00
The balance brought forward from 30th April, 1913, was		401,014 24
Making a total of		$1,800,533 69
This has been disposed of as follows:		
Dividend No. 104, at the rate of 10% per annum	$169,117 50	
Dividend No. 105, at the rate of 10% per annum	169,907 00	
Dividend No. 106, at the rate of 10% per annum	172,549 52	
Dividend No. 107, at the rate of 10% per annum	175,000 00	
		$686,574 02
Transferred to Reserve Fund from Profit and Loss Account		400,000 00
Transferred to Reserve Fund from Premium on New Stock		180,825 00
Contribution to Officers' Pension Fund		50,000 00
Written off Bank Premises Account		100,000 00
Written off for depreciation in Bonds and Investments		135,000 00
Balance carried forward		248,134 67
		$1,800,533 69

RESERVE FUND ACCOUNT.

Balance, 30th April, 1913	$6,419,175
Transferred from Profit and Loss Account	400,000
Premium on New Stock	180,825
	$7,000,000

Average Paid-up Capital during the year, $6,868,500.

E. F. HEBDEN,
General Manager.

H. MONTAGU ALLAN,
President.

Statement of Liabilities and Assets at 30th April, 1914

LIABILITIES.

1. To the Shareholders.

Capital stock paid in	$7,000,000 00
Rest or Reserve Fund	7,000,000 00
Dividends declared and unpaid	176,088 66
Balance of Profits as per Profit and Loss Account submitted herewith	248,134 67
	$14,424,223 33

2. To the Public.

Notes of the Bank in Circulation	$ 5,597,714 00
Deposits not bearing interest	13,309,394 11
Deposits bearing interest, including interest accrued to date of statement	45,946,650 06
Balances due to other Banks in Canada	1,488,333 31
Balances due to Banks and banking correspondents in the United Kingdom and foreign countries	2,278,387 51
Bills payable	.....
Acceptances under letters of credit	76,039 00
Liabilities not included in the foregoing	.....
	$83,120,741 32

E. F. HEBDEN, General Manager.

E. MONTAGU ALLAN, President.

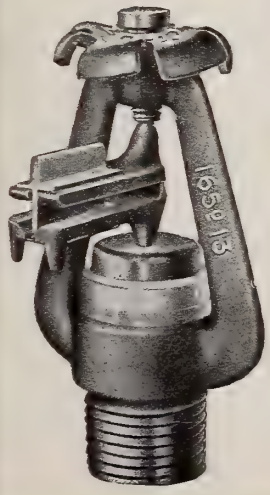
ASSETS.

Current Coin held	$2,993,802 06
Dominion Notes held	4,862,603 00
Notes of other Banks	519,109 00
Cheques on other Banks	3,276,399 74
Balances due by other Banks in Canada	2,688 08
Balances due by Banks and banking correspondents elsewhere than in Canada	1,089,762 76
Dominion and Provincial Government securities, not exceeding market value	568,991 61
Canadian Municipal securities, and British, Foreign and Colonial Public securities, other than Canadian, not exceeding market value	536,990 65
Railway and other Bonds, Debentures and Stocks, not exceeding market value	4,183,097 70
Call Loans in Canada on Bonds, Debentures and Stocks	3,119,841 67
Call Loans elsewhere than in Canada	3,770,117 27
	$24,923,403 54
Other Current Loans and Discounts in Canada (less Rebate of Interest)	$53,603,673 24
Other Current Loans and Discounts elsewhere than in Canada (less Rebate of Interest)	181,016 45
Liabilities of customers under letters of credit as per contra	76,039 00
Real Estate other than bank premises	79,704 98
Overdue debts, estimated loss provided for	74,113 44
Bank Premises, at not more than cost, less amounts (if any) written off	3,720,035 88
Deposit with the Minister for the purposes of the Circulation Fund	325,000 00
Deposit in the Central Gold Reserve	.....
Other Assets not included in the foregoing	137,754 79
	$83,120,741 32

If Your Plant Burned Down

Insurance wouldn't fill your prevailing orders or prevent unemployment and consequent disintegration of a valuable work force.

A disastrous fire is liable to occur at any time if your plant is not sprinkler protected.



Manufacturers' Automatic Sprinklers

catch the small blazes and soon extinguish them. Their efficiency and reliability is recognized by Insurance Companies which give practically an 80 per cent. reduction in insurance rates.

Manufacturers' Automatic Sprinklers can be easily installed in the new or old plant, and they will pay for themselves in five years with savings effected.

LET US QUOTE YOU ON YOUR PLANT NOW!

THE GENERAL FIRE EQUIPMENT COMPANY, Limited

72 Queen St. East, Toronto, Canada

THE CANADIAN BANK OF COMMERCE

SIR EDMUND WALKER, C.V.O., LL.D., D.C.L.
President.

ALEXANDER LAIRD, General Manager.
JOHN AIRD, Assistant General Manager.

Capital . . . $15,000,000
Rest $13,500,000

FOREIGN BUSINESS

This Bank offers unsurpassed facilities to those doing business with foreign countries. It is specially equipped for the purchase and sale of Sterling and other Foreign Exchange Drafts and Cable Transfers and for the financing of imports and exports of merchandise.

Commercial credits, Foreign Drafts, Money Orders, Travellers' Cheques and Letters of Credit issued, available in all parts of the world.

Collections effected promptly at reasonable rates.

THE ROYAL BANK OF CANADA

Incorporated 1869

Capital Authorized . . . $25,000,000
Capital Paid up $11,560,000
Reserve & Undivided Profits $13,000,000
Total Assets $180,000,000

HEAD OFFICE, MONTREAL

BOARD OF DIRECTORS

H. S. Holt, President E. L. Pease, Vice-President
E. F. B. Johnston, K.C., 2nd Vice-President

Wiley Smith, Hon. D. MacKeen, Jas. Redmond, G. R. Crowe, D. K. Elliott, W. H. Thorne, Hugh Paton, T. J. Drummond, A. E. Dyment, Wm. Robertson, A. J. Brown, K.C., W. J. Sheppard, C. S. Wilcox

OFFICERS

E. L. Pease, General Manager
C. E. Neill and F. J. Sherman, Asst. Gen.-Managers
W. B. Torrance, Supt. of Branches

Branches in every Province of the Dominion of Canada and in Newfoundland; in Havana and throughout Cuba, Porto Rico and Dominican Republic; Bahamas, Nassau; Barbados, Bridgetown; Jamaica, Kingston; Trinidad, Port of Spain and San Fernando; British Honduras, Belize.

LONDON, ENG., OFFICE—Princes St., E.C.

NEW YORK AGENCY — Corner William and Cedar Sts

Savings Department at All Branches

AMONG THE INDUSTRIES

We direct the attention of our readers to this department, which has greatly enlarged and improved. Arrangements have been made to secure interesting news of manufacturing from all parts of Canada. We shall be glad to publish items of interest to manufacturers free of charge in this department provided they should not be properly classified as advertisements. If you have interesting items please send them in.

ALBERTA.

Dauntless, Alta.

The Dominion Harvester Company are considering the erection of a factory for the supply and repair of threshing machines.

The new plant of the Canada Cement Company will be completed in time to supply the demand for cement which will coincide with a renewal of active building operations.

Lethbridge, Alta.

Jos. P. Tracy, commissioner of manufactures and commerce, tendered his resignation to the city commissioners recently. It was just a year ago that Mr. Tracy, who was publicity commissioner at Saginaw, Mich., was engaged for his position in Lethbridge at a salary of $6,000 per annum.

A plant will be established here by the Lethbridge Face Brick & Clay Products Company for making pressed tapestry and hollow brick. Sixteen acres have been purchased from the C.P.R. Mr. James A. Close, late of Woodstock, Ont., is interested.

MacLeod, Alta.

A malting house will probably be established here by Messrs. Staley & Ward, of Edmonton.

Medicine Hat, Alta.

The Industrial Loan and Guarantee Co., Limited, has been formed for the purpose of assisting responsible industrial concerns who need capital to locate here. The company is capitalized at $1,000,000.

It is announced by the manager of the Maple Leaf Milling Company that the contract for the company's large flour mill here will be let shortly. It is expected to have 3,000 barrels daily capacity. Work will be rushed to have the plant ready for handling the 1914 crop. The new gas well drilled for the use of the company was blown off recently.

The Lake of the Woods Milling Co., of Montreal, will take formal possession of the porperties of the Medicine Hat Milling Company here on June 1st.

Redcliff, Alta.

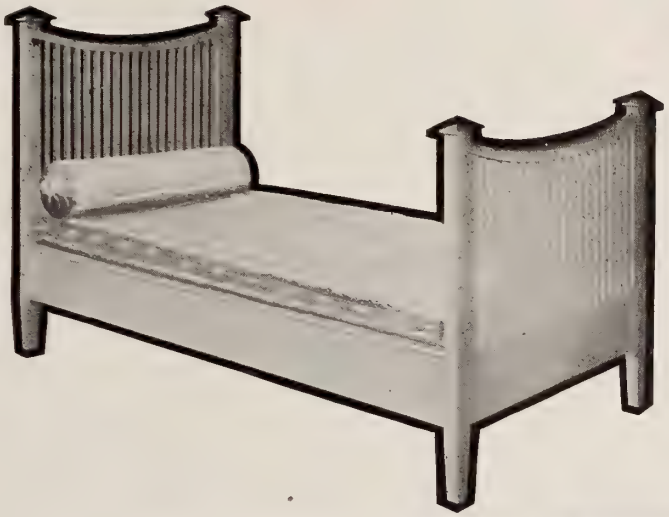
Armstrong & Lynch, of Redcliff, have been awarded the contract for the installation of the new gas system at Bow Island, Alberta. A competent man to act as gas superintendent and other construction work is wanted by Bow Island.

The Redcliff Light & Power Co. commenced work to-day preparatory to drilling the seventh gas well at Redcliff. It is located in the industrial section, section nine. It is expected to strike the gas at 1,200 feet. Gas is furnished to manufacturers at five cents per thousand, and power at $2.40 per h.p. per year.

How natural gas cuts the high cost of living is aptly illustrated at Redcliff, where there are 530 householders using gas for lighting, heating and cooking. This includes continuous service in heating the house, water heater, etc., during half the year. The average cost to these 530 householders for the combined service is $2.50 per month, an average saving of at least $25 per month on these utilities, where coal is used for

BUNGALOW BEDS

FOR YOUR SUMMER HOME



Made in White Enamel, Fumed or Early English Oak and Mahogany

THE BUNGALOW BED fits well into the arrangements of the summer home. It is wide and roomy enough to be immensely comfortable and still durable enough to stand the racket of country life. It is light enough, too, yet strong, and quite inexpensive enough to avoid any cause for worry as regards its care. The illustration shows an English design very much admired as much for its good looks as for its strong, serviceable construction. Ask to see it at your dealer's. Or, if you write us, we will send you his name and a copy of our handsomely illustrated book on period styles.

Shop Mark

TORONTO FURNITURE CO., LIMITED
Offices and Factory: DUFFERIN ST., TORONTO
MEMBERS OF THE HOME MARKETS ASSOCIATION



The Ritz-Carlton Hotel

SHERBROOKE STREET, MONTREAL

offers the Comfort, Service and Cuisine of the famous Ritz chain of Hotels and Restaurants round the world, at similar rates to those of other leading hotels in Canada. 3

heating, electricity for lighting, and gas at 35 cents to $1 for cooking. Gas for domestic purposes is furnished here for 13½ cents per thousand, and to manufactories for 5 cents per thousand.

BRITISH COLUMBIA.

Burrard Inlet, B.C.

A 12-machine mill will be erected by the Vancouver Lumber Co., Limited, at Roche Point.

Coquitlam, B.C.

Further additions to the plant of the Coquitlam Shipbuilding Company will probably be made, to cost in the neighborhood of $25,000.

Duncan, B.C.

The Interior Hardwood Finishing Co., Limited, is opening a new industry. The company has seven acres of good land and on this it proposes to erect dwellings for its employees, close to the large factory where will be made the various commodities for the production of which the company has taken out its papers.

New Westminster, B.C.

Messrs. Stewart, Moore & Wright, Vancouver, have taken over the D. & H. Brassworks Company at Sapperton. Two acres of land have also been purchased and a foundry and steel plants will be built.

The Royal Ice Company's plant commenced operations this month.

The King Lumber Company announce that within two months a lumber mill having a capacity of 10,000 feet per day will be built on the B.C.E.R. Chilliwack line, south of here.

Skeena River, B.C.

A new cannery will be operated on the Skeena this season by the Skeena River Fisheries.

Vancouver, B.C.

The courts have approved of the big pulp deal, and the plant of the Ocean Falls Co., 200 miles north of here, is to pass under the control of a merger of Pacific coast pulp and paper interests. It is valued at about $4,000,000.

The new plant of the Mainland Ice & Cold Storage Company is now in operation. The promoters of the new enterprise claim to have the most up-to-date plant and building on the Pacific coast.

S. M. Morris & Co., Limited, ornamental iron manufacturers, having secured contracts for the new immigration shed, the Cope warehouse and the General Hospital, are taking on extra men.

Mr. Wm. Ramsay, vice-president of Ramsay Bros. & Co., Limited, Vancouver, biscuit manufacturers, left on April 13th to take charge of Ramsays, Limited, Montreal.

A shingle mill having a daily capacity of 1,000,000 shingles will be erected by the Shull Lumber & Shingle Company, of Everett, Washington.

A company has been formed and incorporated under the name of the British Coumbia Steel Works, Limited, with the object of erecting a rolling mill in the city or close to it.

Vernon, B.C.

Under the management of Mr. Leitch the Dominion Canners, Limited, will start operating their Vernon canning plant on July 1st.

Victoria, B.C.

The new works and plant of the B. C. Potteries, Limited, recently destroyed by fire, will start operations soon.

MANITOBA.

Oak Lane, Man.

Leitch Bros. Milling Co. propose to erect a flour mill with a capacity of 3,000 barrels per day and an auxiliary plant for sack making.

Winnipeg, Man.

It is reported that a beet sugar factory may be built here. Mr. Roland, Industrial Commissioner, is negotiating with a group of capitalists.

NEW BRUNSWICK.

Bathurst, N.B.

The Bathurst Pulp & Paper Company have secured a concession from the town whereby the company will have a fixed valuation for taxation of $125,000 for 30 years. Ground will be broken for the pulp mill shortly.

St. John, N.B.

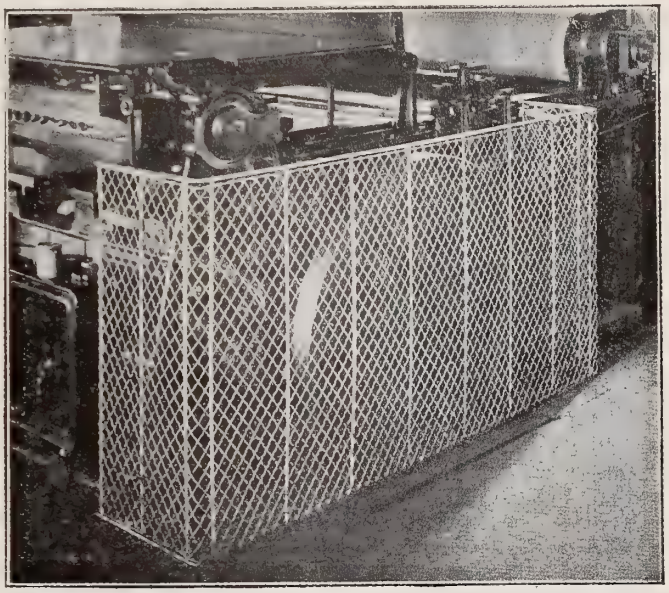
Mr. W. Macdonald Mackintosh, formerly of Liverpool, England, will build a factory here to make waterproof cloth goods. The process is Mr. Mackintosh's own.

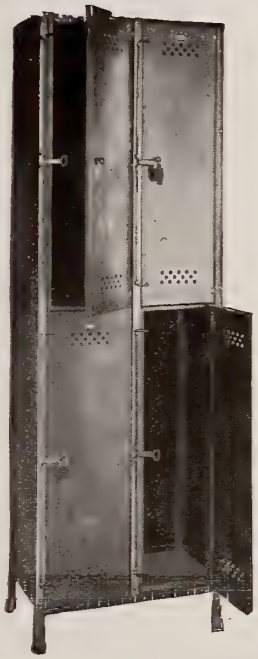
People who didn't know what was going on were painfully surprised to read in the papers a few weeks ago that the paper mill at Millerton on the north shore of the province had shut down. Now they are told that the reason the mill suspended was to admit of an extension of its business in the direction of the manufacture of newsprint. London and New York capitalists have interested themselves in the Millerton enterprise and it is stated that the new mill will be one of the best equipped on the continent.

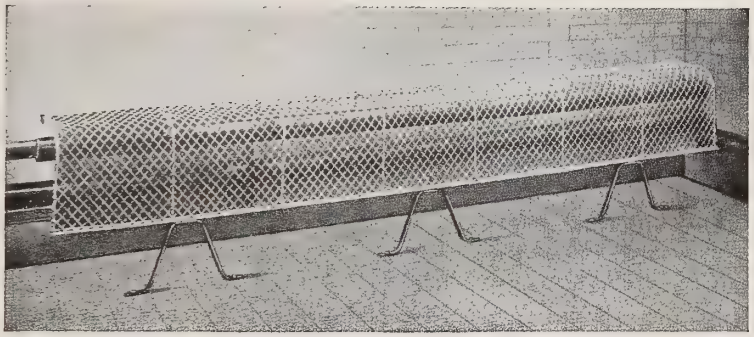
SAFETY FIRST

THESE CUTS ARE SELF-EXPLANATORY









WE MAKE THEM ALL

Interested manufacturers are invited to correspond with

THE GEO. B. MEADOWS, TORONTO WIRE, IRON AND BRASS WORKS CO., LIMITED

479 West Wellington Street, TORONTO

The Canada Wire & Nail Co., Limited, is seeking a site in West St. John on which to establish a factory employing 40 hands at the outset.

Fire recently totally destroyed Christie's Woodworking Factory, throwing sixty men out of work. The loss is $60,000 with $20,000 insurance.

The cultivation of oysters near the mouth of the Mirimichi is to be started by a new company now being organized.

It is stated by W. U. Homfray, an English capitalist, that representatives of three large British manufacturing concerns are in search of a site for the location of branch factories to handle their Canadian business.

It is learned from well-informed sources that the Canadian Sardine Company's big plant at Chamcook, Charlotte County, is to resume operations this spring. The announcement was made some weeks ago that the company had found financial accommodation, and arrangements have been made by the management to open up business without further delay.

The factory of the Christie Woodworking Company was recently burned out, the loss being estimated at $60,000.

NOVA SCOTIA.

Amherst, N.S.

At a recent meeting of the shareholders of the Hewson Pure Wood Textiles, Limited, it was announced that $100,000 had been subscribed to resuscitate the concern.

Halifax, N.S.

At a meeting of the manufacturers and master mechanics of the city, held recently, it was decided to ignore the demand made by the Halifax Trades Council, that hereafter all men employed in the building trades in the city be in a position to furnish union cards when called upon. The meeting declared for an open shop, and decided to resist any attempted interference with this principle on the part of union men. This action complicates the present labor situation here to a considerable extent.

A number of the directors of Standard Clay Products, Limited, left Montreal last week on a visit to the firm's new plant which has just been completed here. Arrangements are being made for the rebuilding of the company's No. 2 plant which was destroyed by fire recently.

ONTARIO.

Brampton, Ont.

The Canada Grain Company have been granted a permit for the erection of a flour mill at a cost of $10,000.

Brantford, Ont.

A company is being formed to establish a pressed brick plant here with a capital of $200,000.

Cobourg, Ont.

A by-law will be voted upon by the ratepayers to loan $10,000 to a felt factory promoted by Mr. Z. D. Charles, of Montreal.

Englehart, Ont.

A company is being formed to purchase several thousand acres of timbered land near here with the intention of building and operating a large woodworking factory. Chairs, broom handles, door knobs, etc., are to be the products.

Fort William, Ont.

It is reported that Mr. C. P. McLennan, of Halifax, N.S., is in London, England, promoting an English company for the manufacture of railway locomotives here. The capital of this Anglo-Canadian Company, it is stated, will be £1,000,000, of which £400,000 will shortly be issued in England.

The Grand Trunk Pacific Railway Company, through their general fuel agent, have just announced it is their intention to construct a huge coal handling plant at the mouth of the Mission River that will cost about $1,250,000.

A recent despatch from Kingston, Ont., in announcing the taking over of the Kingston Shipbuilding Company by the Vickers Maxim Company, of London, Eng., states, the company are considering the establishing of another branch of its shipbuilding activities at Fort William.

Galt, Ont.

The Maple Leaf Bedding Company, Limited, has been organized and the company will take over the bed manufacturing business formerly conducted by the Shurley, Dietrich Company, Limited, whose plant was recently destroyed by fire. Twelve thousand dollars is asked as a loan from the Town of Galt. A by-law authorizing the loan will be submitted.

A shoe factory is being opened here by M. C. Boulette, of Brockton, Mass. The machinery is being installed.

Guelph, Ont.

A change in the management of the Raymond Manufacturing, Limited, was effected recently, whereby the old management has been retired and the business affairs taken over by the Trusts & Guarantee Co., of Toronto, administrators of the Klepfer estates. The business will continue to manufacture sewing machines and cream separators, and the workmen at present employed will still be kept on.

Hamiton, Ont.

John G. Gauld, solicitor of the Hamilton Bi-Product Coke Company, states that the delay in the erection of the plant for this company was due to the indecision of the government over the harbor improvements near the site where the plant will be built. As soon as it is known what the Government will do, work on the plant will go ahead.

James A. Publow, one of the original members and founders of the Canadian Manufacturers Association, died on April 28th. Born in Perth, Ont., fifty-nine years ago, he spent the greater part of his life in Brockville, where for many years he was associated with the J. W. Mann Manufacturing Company as superintendent. He is survived by a widow and daughter.

Kingston, Ont.

The Reliance Molding Company, Toronto, will move its plant to this city. The company is erecting a building at the Junction.

Leaside, Ont.

Six carloads of bricks have been unloaded at Leaside station, Canadian Northern Railway, to be used for the construction of the new Canada Wire & Cable Co.'s factory at Leaside. It is to be one of the longest factory buildings in the Dominion.

Lindsay, Ont.

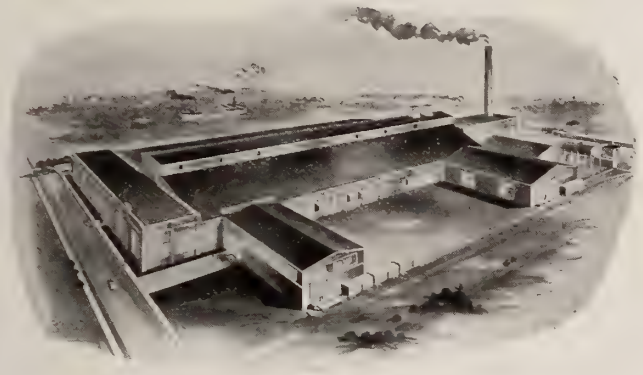
B. Cooper, president of the Cooper Cap Company, Toronto, and C. D. Wilder, of the same firm, were here recently with a view to establishing a branch factory.



EXHAUST SYSTEMS

We design and install Exhaust Systems for Planing Mills, Shoe Factories, Pulp Mills, Grinding and Buffing Plants, or for any business where it is desired to exhaust foul air or convey materials by means of fans. We will be pleased to have inquiries.

Geo. W. Reed & Co., Ltd., Montreal



SHAFTING

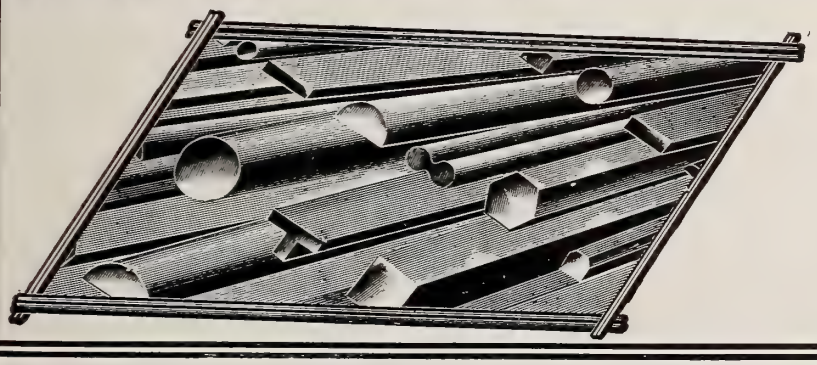
Cold Drawn, Cold Rolled
Turned and Polished Steel

The Canadian Drawn Steel Co., Ltd.

HAMILTON, CANADA

UNION DRAWN STEEL CO., Limited

HAMILTON, ONTARIO



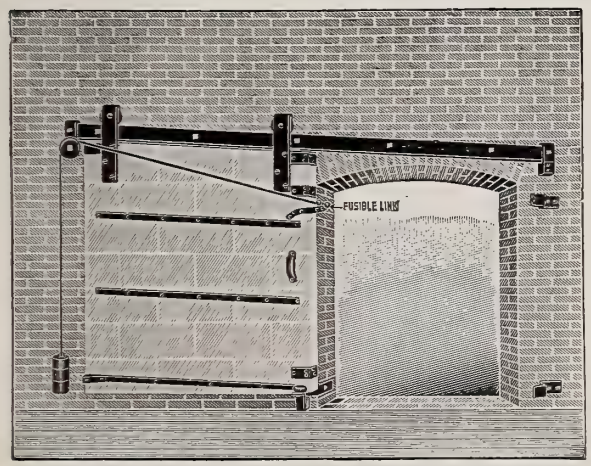
MANUFACTURERS OF

Shafting

Rounds, Flats, Squares and Hexagons

LARGEST STOCK IN CANADA

Get prices before ordering elsewhere.



MAXIMUM FIRE PROTECTION AND MINIMUM INSURANCE PREMIUM

Are Only Secured By Using

UNDERWRITERS INSPECTED HARDWARE LABORATORIES

Look For The Label

Richards Monarch A

Fire Door Hardware

Overhead Carrying Systems

Use R-W Trolley Track and Hangers for all Sliding Warehouse Doors. Only right way to hang heavy doors: Catalog on request

Richards-Wilcox

CANADIAN COMPANY, LTD.
LONDON, ONTARIO.

BROWN BROS., LIMITED



Manufacturers of

ACCOUNT BOOKS

Loose Leaf Ledgers, Binders, etc.
Leather Goods, Diaries, Paper, Stationery, Office Supplies

OFFICE AND FACTORY - - TORONTO
SIMCOE, PEARL AND ADELAIDE STS.

The Montreal Lithographing Company, Limited

High Class Lithographers and Designers of

CALENDARS SHOW CARDS
LABELS OFFICE STATIONERY
ADVERTISING PLAYING CARDS

Office and Works
ONTARIO STREET & PAPINEAU AVENUE
MONTREAL, CANADA

Listowel, Ont.

A loan of $10,000 may be granted to the Dominion Milk & Flour Co., Limited, who propose to spend the sum of $35,000 on an equipment for the manufacture of butter and milk powder.

Owen Sound, Ont.

On June 6th the ratepayers will vote on three industrial propositions. A drydock and shipbuilding concern is to be given a bonus of $10,000 a year for twenty years. It is to construct a plant to cost $1,500,000 and give employment to not less than two hundred men for at least eleven months in the year. The Union Cement Company gives the town a first mortgage on its plant and property, in return for which the town is to give a loan of $60,000, to be repaid, principal and interest, in ten equal annual instalments. The Canada Yeast Company has asked for exemption from taxes for a term of ten years.

Port Arthur, Ont.

The ratepayers have granted a bonus of $25,000 to the Conley Frog & Switch Works, Memphis, Tenn., for the erection of a frog and switch factory.

Ottawa, Ont.

William Caven, District Inspector of Inland Revenue at Montreal, has been appointed Inspector of Tobacco Factories for the Dominion, in succession to the late Henry Lawlor.

Port Dover, Ont.

A new company have taken over the Glencoe Canning Co. with H. B. Chapman as manager.

Port Hope, Ont.

The board of trade and town council have agreed to guarantee a loan for two years from the Bank of Toronto to the Cosmos Chemical Company for the establishment of a new manufacturing department, which was opened recently.

J. Saunders, town clerk, states that the temporary financial stringency had no appreciable effect on Port Hope. The Standard Ideal Factory, with 300 men; Nicholson's File Co. works, 150 men; the Steel Mat Factory, Cosmos Chemical Co., Sculthrop Machine Shops, Port Hope Lace Factory and other industries have all run full time.

Preston, Ont.

Building Product Company, Limited, of Toronto, is negotiating with the town authorities for a loan and certain exemptions in regard to the proposed brick plant.

Preston is entertaining a proposition from the Building Product Company, makers of sand bricks and other building material. This concern offers to establish a $50,000 plant, employing fifty men. They have $20,000 of Toronto capital subscribed, and ask $15,000 from the town corporation.

Sault Ste. Marie, Ont.

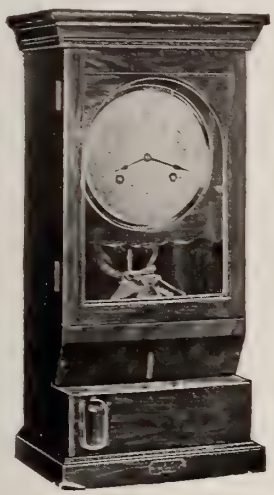
Application was made to the City Council here recently by the Lake Superior Shipbuilding and Drydock Company for an extension of time to be allowed it in which to commence construction operations until June 30th. The new drydock which is to be built will cost a million and a half dollars.

Toronto, Ont.

The Interprovincial Brick Company of Canada, Limited, who are erecting a plant near Cheltenham, Ontario, for the manufacture of pressed brick, have opened head offices in the Goodyear Building, Toronto.

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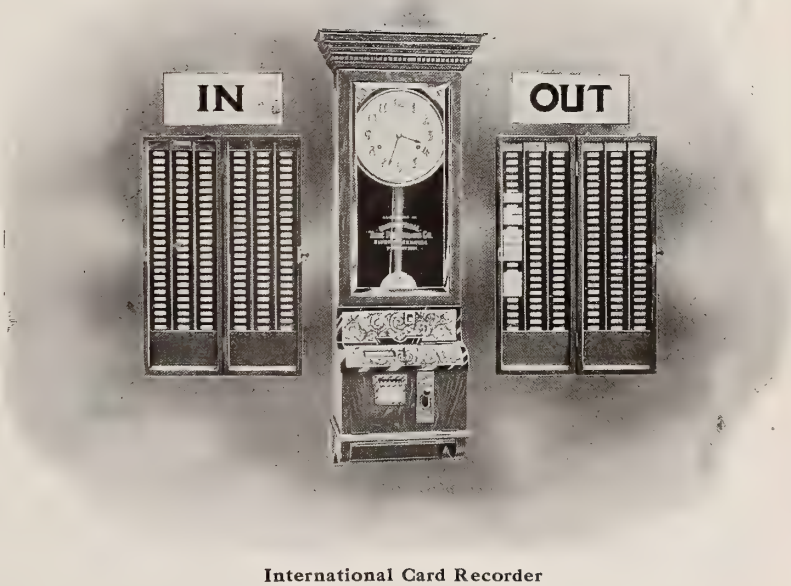
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The Canada Gazette contains notice of the incorporation of the Universal Tool Steel Company, Limited, of Toronto, with a capital stock of $10,000,000, the Dominion Engineering & Machinery Company, Limited, of Toronto, with a capital stock of $2,000,000, and the Automatic Telephone Manufacturing Co. of Canada, Limited, Winnipeg, with a capital stock of $1,000,000.

Mr. C. C. Mendham, who has been connected with the outdoor staff in Toronto of the Herbert Morris Crane & Hoist Company, Limited, has now been appointed resident engineer in Berlin for the same company.

A site has been purchased at Davisville by R. W. Burnaby, 1844 Yonge St., for the erection of a planing mill.

The Canadian Kodak Company has announced that the actual work in the construction of their new plant, Mount Denis, corner of Eglinton Avenue and the C.P.R. tracks, will commence in the course of two or three weeks. Plans are now being prepared for a $1,500,000 plant.

A new seven-storey fireproof building will be erected by the Nordheimer Piano and Music Company on the northwest corner of Yonge and Albert Streets. The structure will be called the Nordheimer Building and will contain a recital hall and studio accommodation for tenants.

A holding company under the name of Canned Goods, Limited, and with a capital of $100,000, has been formed by forty of the independent canneries of the province. The headquarters will be on Front Street, Toronto.

Messrs. Clarke & Clarke, Limited, have removed their warehouse from No. 52 Bay Street to larger and more convenient premises at No. 63 Bay Street.

The Canada Last Company have had plans drawn for a factory on Van Horne Street.

The Dominion Brewery Company have had plans drawn for additions to their premises. Tenders are not yet called.

Walkerton, Ont.

It is announced that the old Binder Twine Co.'s factory here is to be reopened and will be in operation in July.

Waterloo, Ont.

On condition that a large addition, costing $125,000, is erected to the present plant of the Globe Furniture Company, the ratepayers have decided to loan them the sum of $50,000 for twenty years and to grant them exemption from taxation for ten years.

West Toronto, Ont.

Mr. J. E. Rogers, until recently assistant general sales manager of the National Cash Register Co., Dayton, Ohio, joins the Russell Motor Car Company as assistant general manager. Mr. Rogers will also be elected to the directorship made vacant recently by the death of the late Senator Cox, and become second vice-president of the company.

Windsor, Ont.

A structural steel plant will probably be built by T. J. Lawson on McDougall Street in the No. 1 factory district.

It was the intention of the Dowsley Spring and Axle Company to build a factory this spring on a site the company purchased on Howard Avenue, but owing to a serious fire plans have been deferred.

Wiarton, Ont.

The Canada Casket Co. by-law was given the third reading by the town council on May 11th, and next week the company will begin work on their plant here.



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QUEBEC.

Ayer's Cliff, Que.

The Rugg-Ball Mfg. Co., Limited, of Sherbrooke, have plans drawn for the erection of a rake and shovel factory.

Granby, Que.

The Granby Rubber Company have closed down their works indefinitely. The question of enlarging their works has not yet been decided. Berlin, Ontario, is making a big pull for the factory, it is said.

Rock Island, Que.

The Union Twist & Drill Company contemplate the erection of a machine shop.

Sherbrooke, Que.

Machine shop plans are being prepared for the Sherbrooke Machinery Company.

SASKATCHEWAN.

Melfort, Sask.

The Canada-West Grain Co. will open a branch in Winnipeg, with Mr. Leslie, formerly manager of the Saskatoon Milling Co., in charge.

Regina, Sask.

The Leitch Bros. Milling Co. will erect a mill with a capacity to mill 3,000 barrels of flour per day, together with an auxiliary plant required for sack making, etc. The agreement with this company provides for the establishment of the mill in Regina's industrial area, which is served by the three transcontinental railways, and has access to twelve branch lines.

It is announced that the Northern Electric Co., of Montreal, will establish their general headquarters for the West in Regina. For the time being the company will occupy one entire floor of the large Ackerman Block.

A large plant known as the Regina Red Press Brick Company will be erected on the north side of the city this summer. The plant will cost in the vicinity of $75,000.

Tenders are being called for the erection of a warehouse and factory for the Metal Shingle & Siding Co., Limited.

The firm of Wettlaufer Bros., of Toronto, have opened a branch here and have secured temporary quarters in the old Monarch Lumber Company's warehouse. They will shortly erect a first-class warehouse of their own. The branch at Regina is the only one west of Winnipeg and will control all the business in Saskatchewan, Alberta and British Columbia.

The Dominion Dairy Co., Limited, has been granted a permit for extensions.

Tenders are now being received by Storey & Van-Egmond, 1014 McCallum Hill Building, for extensions to be made to the warehouse of the Regina Plumbing and Heating Company.

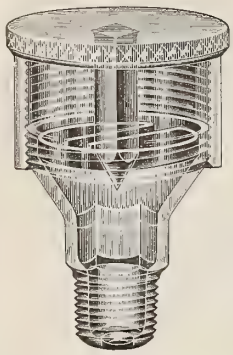
Saskatoon, Sask.

At a cost of $27,000 it is understood that Speers & Mighton will erect a produce warehouse on 1st Avenue and 23rd Street.

Swift Current, Sask.

Plans are being drawn for I. A. Welk and J. J. Nickel, Rosthern, Sask., for the erection of a flour mill with a capacity of 1,000 bbls. daily.

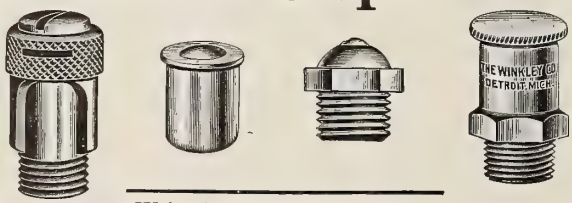
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WHO SUPERVISES SMALL PURCHASES IN FACTORY?

By J. V. Hunter.

PRACTICALLY every factory has a different method of handling requisitions, and many are remarkable for their uniform degree of "stinginess" in the matter of small tools and supplies. Yet seldom is this the policy when a larger outlay is concerned; then the purchase of a single expensive tool usually is passed with hardly a question.

This of course follows from the fact that in a large factory the sources of small tool requisitions are very numerous and come from individuals low down on the scale of organization. The requisitions of the larger and more expensive equipment generally have their origin with employees of greater responsibility.

Few concerns actually carry in their tool rooms an adequate supply of tools to fill the daily needs of their shop force. Too many depend to a very large extent on the fact that many skilled workmen have a considerable tool kit of their own. Consequently, when a foreman wishes to put an unskilled man on any sort of a common job, the poor fellow has to spend considerable time running around endeavoring to borrow the tools he needs. Such endeavors to pick up tools are an annoyance, both to the foreman and to the skilled workers whom he must bother with his inquiries.

Niggardliness in respect to small tools does not pay. These should be considered just as much a vital part of a modern shop's equipment as the planers, lathes or any of the machine tools.

Sometimes it has occurred that a shopman has asked the executive for a new supply of emery grinding wheels, and has been told that he should wear them down further. He obeys orders literally and keeps grinding away with the old wheels until they are worn down to the chuck. What is the economy in that? From the time a wheel ceases to operate at highest cutting efficiency, excess labor charges begin to accumulate.

Where can the line be drawn between what requisitions should be passed for purchase immediately and those that should undergo a closer scrutiny? If the questioning becomes so rigid that a foreman hesitates about asking for things because he always expects to be turned down, many necessary supplies will be neglected. On the other hand if every request were passed without comment, the abuse of the privilege would soon become a source of enormous expense and the shop would be cluttered with worthless articles.

The disposition of a large share of the requisitions can be left to the care of well-trained subordinates, who should be capable of exercising satisfactory judgment in the matter of standard supplies and minor replacements. Moreover, they should be charged with the exercise of intelligent scrutiny of these orders, as well, so that in case there is an increased consumption due to a poor grade of supply, or to a growing habit of wastefulness, they can take steps to report or correct the trouble.

In any case when a requisition comes through for an unusual article, the routine purchasing department should be charged with the duty of ascertaining all the facts relative to the matter and placing them before the chief executive, with the requisition, for his decision. In this way can the executive be relieved of the routine of approving an endless number of standard orders, and yet feel that his departments are not calling for a vast quantity of supplies for which there is no need.

INDUSTRIAL CANADA

ISSUED BY

The CANADIAN MANUFACTURERS ASSOCIATION.

INCORPORATED.

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INDUSTRIAL CANADA

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The Convention.

A GREAT volume of business was transacted at the Annual Convention of the Canadian Manufacturers Association, held in Montreal on June 9th, 10th and 11th. It was greater than it appeared, because it went smoothly and quickly through the hands of those familiar with it—the officers, members of Council, chairmen and members of committees. Few of the rank and file of the Association were present. This was not only regrettable, but also inimical to the best interests of the Association. During the year, the officers, members of Council and the members of committees devote time, energy and thought to the interests of the manufacturers. They do a great deal of work. Their work would be made doubly effective if a strong representation from those who are not serving in Council or on the committees assembled annually to criticize, suggest and assist. Battles are not won by groups of officers.

Although the attendance was fair, it was unsatisfactory in the light of what it might have been. This result was partly due to the lack of debatable questions. The tariff policy of the Government was disposed of for the present by Mr. White's budget. The Western rates case caused a lull in transportation. The Insurance Department trouble had been settled. Ontario's Workmen's Compensation measure had become law. The companies case is before the Privy Council.

It should be remembered, however, that while there was an absence of spectacular issues, there was an abundance of fairly large matters, which, aggregated, constituted a most important programme.

The small attendance and the lack of spirited discussion may be taken as evidence that the rank and file are satisfied that the affairs of the Association are in safe hands, which is comforting to the manufacturers who direct them, but we venture to say that those who conduct the Association's business would prefer a spice of criticism and opposition, knowing that the resulting activity of thought would benefit the manufacturing interests throughout the country.

Too Much Legislation.

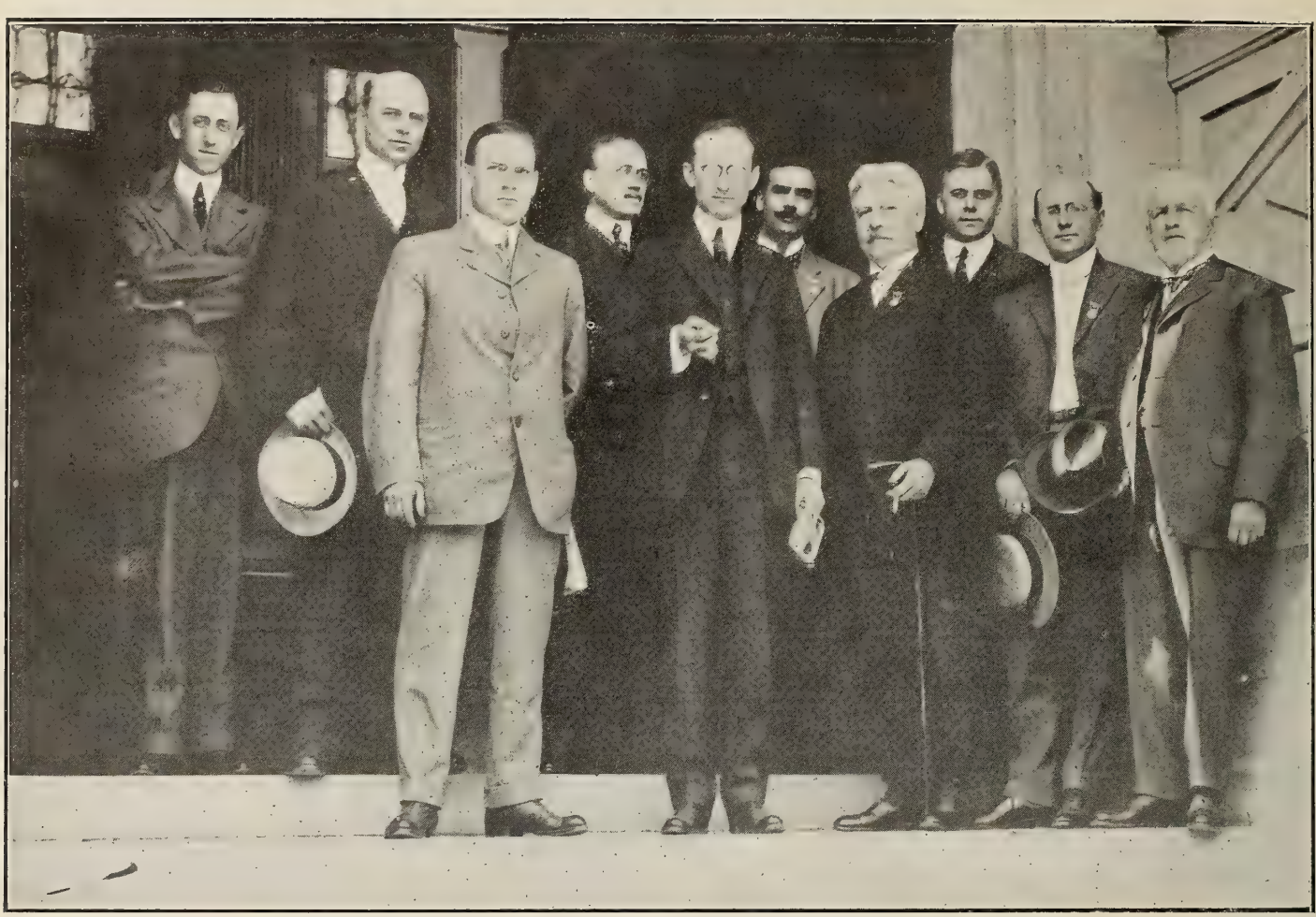
MANUFACTURERS who are still smarting from the recollection of the manner in which the Workmen's Compensation Bill was jammed through the Ontario Legislature have experienced a type of socialistic legislation which is sweeping over the world. This tendency is described as follows by a writer in the *American Metal Market*:

"Business men engaged in export trade complain of an unusual condition. Almost the whole world is suffering from trade depression which seems to spring from a common cause, too much legislation of the kind that unsettles business.

"In England business has been depressed for several years by a series of radical laws. Trade has become so unsettled that a few months ago the Governors of the Bank of England, for the first time in the history of that institution, addressed a protest to the Government.

"German trade has not recovered from the staggering blow of a special war tax of $250,000,000 which was levied last year, no one knows why. France and other countries are depressed by financial difficulties growing out of the political troubles incident to the Balkan war.

"Brazil is going through a period of liquidation and acute business depression, paying the penalty for a wild experiment in legislation. The Government tried to regulate the price of coffee, so as to make the crop more profitable to the planters. The scheme of 'valorization' or



A FEW OF THE OFFICERS AND MEMBERS OF THE STAFF.

Left to right: Messrs. O. W. Dettmers, Insurance Department; J. R. K. Bristol, Manager Tariff Department; F. W. Wegenast, Legal Secretary; J. E. Walsh, Manager Transportation Department; G. M. Murray, General Secretary; H. Champ, Insurance Department; E. G. Henderson, President; J. T. Stirrett, Editor "Industrial Canada"; J. M. McIntosh, Secretary, Toronto Branch; Geo. Booth, Treasurer.

Government regulation of the price has proved a failure and a large stock of coffee must be disposed of.

"The root of the trouble in Mexico is that the country has broken down under the burdens of the 'cientifico' system of legislation, the futile attempt of former President Diaz to make the country prosperous by schemes promoted by the Government. Australia and New Zealand have their own peculiar troubles, and even Canada has 'growing pains' as a result of too much Government-booming of the North-west.

"In our own country we have had a tremendous output of legislation in the past year. A tariff system which had stood for fifty years has been overturned, the currency system has been revolutionized, and Congress is working on a large grist of new laws to regulate business."

Too much paternal legislation on the part of the State discourages independence, industry and ambition. The wealth of a country arises from what it produces, and if the producers become lazy and inefficient, national poverty must follow.

When laws, or the absence of hampering laws, encourage men to work, and to excel in their work, production increases, capital loses its timidity, work becomes plentiful, with the result that all classes in the nation benefit.

Difficulties of Mixed Farming.

LARGE doses of mixed farming have been prescribed for the West by various economic physicians, and, as a regular practitioner, INDUSTRIAL CANADA contributed a few pills of thought. Mixed farming, like wealth, was considered to be desirable. How to get it is another question.

Mr. Charles A. Dunning, manager of the Saskatchewan Co-operative Elevator Company, told the Annual Convention some of the obstacles in the way of mixed farming. In his address, published elsewhere in this issue, he said:

"Let me tell you that, over a large portion of the prairies which produce the largest quantity of our grain, one of the greatest drawbacks to any kind of farming, with the exception of grain farming, is the lack of water. You may not know that on many of our wheat plains the farmer must depend for his water on what he can collect in a pit. Did you ever hear of a man going in for dairying under those conditions? Or did you ever try melting snow in the winter so that your animals might get enough to drink? I have seen it done.

"The hope of those districts is not mixed farming, as generally understood. It is diversified farming in respect to grain crops, cereal crops and grass crops, and we are doing the best we can to help those people along that

line. But, we must not lose sight of the fact that wheat will be for years to come their staple product.

"Another reason why farmers do not go in more for mixed farming was mentioned in one of your reports, which I was very much interested in listening to—the fact of the homestead regulations necessitating mere cultivation. There is hope, I understand, that this bar will be removed."

At any rate, we are glad to see that Mr. Dunning believes in letting the homesteader get his patent by raising stock as well as by breaking land.

Firemen Should Be Inspectors.

FIRE CHIEF TREMBLAY, of Montreal, is asking for 68 new firemen, one-half of whom will be required to carry out the special system of fire inspection which it is desired to put into effect without delay. An extra man is to be attached to each station for the work of inspecting the buildings of each district. The work would be kept up constantly, the men taking the inspection duties in turn. This is decidedly a step in the right direction.

A considerable part of the firemen's time seems to be consumed by fatiguing games, such as dominoes and checkers, or the armchair exercises practised in front of fire halls. Too great attention to these pastimes tends towards mental inertia and physical avoirdupois.

Let part of the fire-fighting force teach the methods of prevention. Prevention will save property for the householder and work for the firemen. Moreover, it may save both their lives.

The Ontario Government and Workmen's Compensation.

SIR JAMES WHITNEY cannot make better use of the large majority, by which he has been recently returned to power, than to amend the Workmen's Compensation Act with it.

There is no doubt, even in the minds of the Government members, that the Act, though possessing worthy features, contains clauses which cannot be put into practical effect.

Until these unworkable clauses are amended, the Commission will have to be guided, in many cases, by what the Act ought to say rather than by what it does say.

Manufacturers in Parliament.

THAT more manufacturers should offer themselves as candidates for Parliament and for the Provincial Legislatures was the unanimous verdict of the Annual Convention of the Canadian Manufacturers Association in Montreal. We quote from the discussion:

MR. W. B. TINDALL: "As manufacturers we nominate a man for the Legislature and we give him a somewhat desultory help, but we are so thoroughly filled with the ideas of our own particular line that we do not put that



A GROUP OF MANUFACTURERS AT THE MONTREAL CONVENTION.

Front row, left to right: Messrs. H. H. Champ, Hamilton; E. G. Henderson, Windsor; J. H. Sherrard, Montreal; Henry Bertram, Dundas; J. S. McKinnon, Toronto; George Booth, Toronto; H. J. Waddie, Hamilton.



Traders Bank Building, Toronto
The C.M.A. Head Offices occupy practically all of the fourteenth floor—just above the balcony.

man into office. There are demagogues who can talk very much better than they can work; windbags, who carry away the popular vote, who appeal to the workingmen. Manufacturers have only one vote each, and employees will possibly average fifty to each employer. Men enter the local assemblies or the Dominion House through the votes of the people. How are we going to get the votes of the workingmen? We can't delegate to one man the work of looking after the bills that are introduced for our benefit. He won't do it; he is going to pander to the people who have the most votes to sell."

Mr. Parsons: "Mr. H. G. Wells states that the British House of Commons to-day is composed very largely of English barristers and solicitors. He argues that these men are all right in regard to forensic ability, but they are looking out for party advantages as well as personal advantages, rather than for the good of the people. Furthermore, he states that these men are not in touch with everyday business life and conditions of the people and that therefore they do not properly represent the people in the British House of Commons. The same thing is true of our own country and we know we have altogether too many lawyers. When they get into Parliament they try to stay in by the votes of the people, and the vote of the workingmen being large, they appeal to the workingmen in every way possible, and they are sustained. Unless we are represented we will never get through measures that will be in the interests of business men and the people as a whole."

Mr. Bull: "Representation of the Manufacturers Association in the different Houses comes down to a question of just how much we would stand by our candidates. I believe that the time has come when the manufacturing interests are so large that there ought to be some influence brought to bear within the Association to bring the attention of the men interested in these great industries to realize that there is a possibility of the interests we represent being larger than party sometimes."

President Gordon: "Representative government in Canada to-day consists of government by party. Men are elected to go to Ottawa to represent a certain party, and for the most part they stay with that party to the end. They vote for things they know are wrong. Now, it seems to me we have come to a point in Canada when we are getting very tired of this kind of government. I know there are a lot of Liberals in this country willing to vote and I know there are a lot of Conservatives who are willing to vote the Independent ticket. It seems to me that is the note we should strike now. We have got to get some independents up in Ottawa and in our Provincial Legislatures so that the lawyers will be frightened. We have got to get members into our Legislatures who are so absolutely independent that nobody will know how they are going to vote until the last moment, and that is the only kind of fear you can put into lawyers who are hidebound. You will never change them; they go there for their own purposes, not for the purposes of the public at all. They make money out of politics and they make it by sticking to one party or the other. Therefore, as business men, if we put people into the Legislatures they have got to be absolutely independent."

From other countries the same cry goes up: "Give us business men as representatives." Yet few business men offer themselves as candidates. Is it because they are too busy to attend to business?

The Highland Piper.

ON the boat that conveyed the manufacturers about the Harbor of Montreal, there was a Highlander piper. He wore the Stuart tartan. His tread was that of the "Cock 'o the North." The skirl of his pipes rippled out over the bright water. His dirk handle flashed in the sun.

He was a romantic figure set gaily against the background of the city's black and grey.

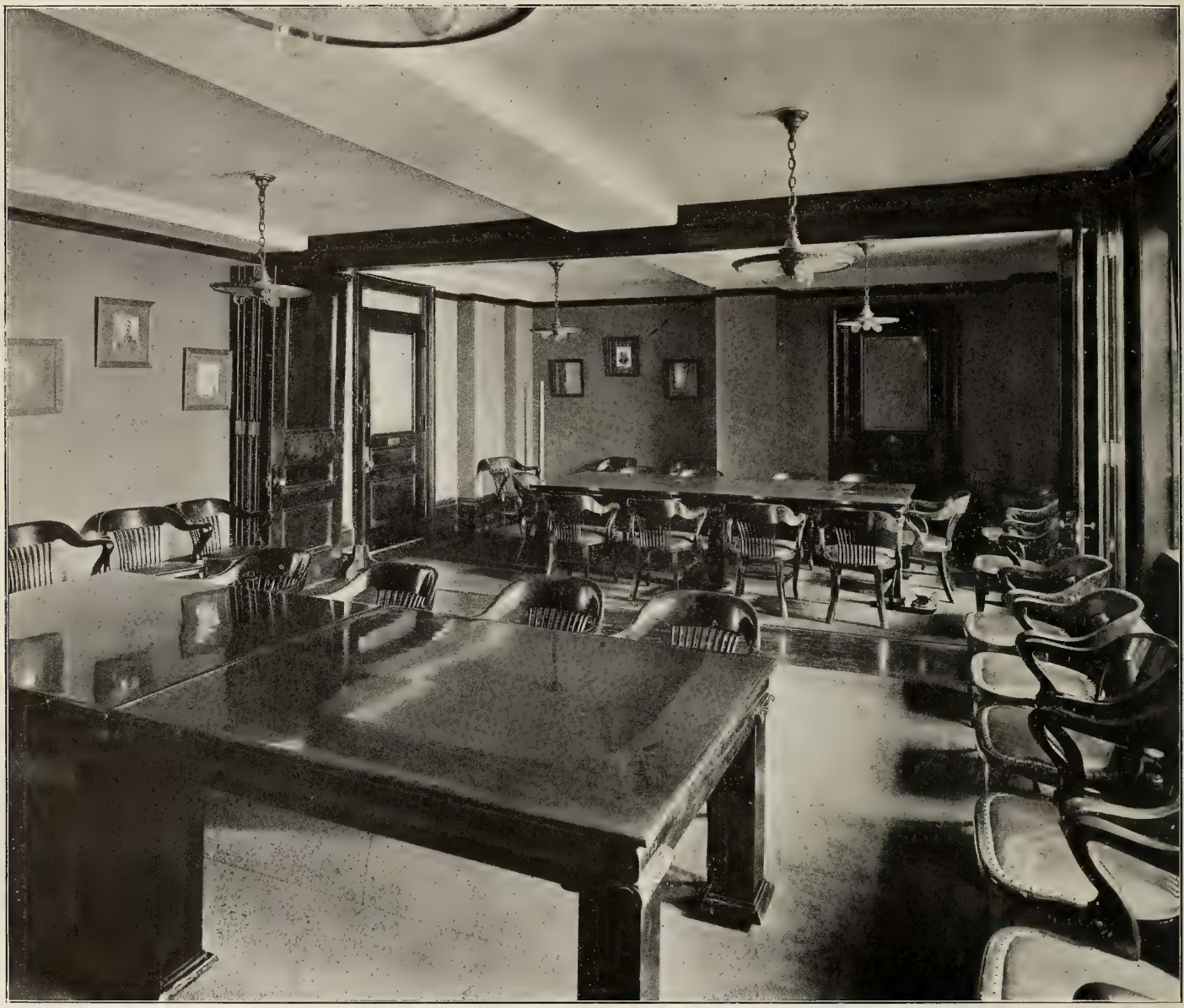
His countrymen, Strathcona, Mount-Stephen and their kind, helped to build the great city behind him and others like it.

And as the piper lad stepped with his brave blitheness along the deck the tilt of his pipes, the cock of his bonnet, the swing of him altogether, seemed to reincarnate that indomitable Highland courage which helped to make Canada's farms, railroads, banks and industries.



VIEW OF THE GENERAL OFFICE, C. M. A., TRADERS BANK BUILDING, TORONTO

FOURTEEN years ago the Canadian Manufacturers Association was a provincial organization with only 132 members, most of whom were in Toronto. It has now 3,100 members, and has become a national organization with representatives in all of the provinces of Canada. Exclusive of the Insurance Department, there are now on the pay roll of the Association 32 persons, 25 of whom give their entire time to the work. The Head Offices now occupy practically all of the fourteenth floor of the Traders Bank Building, Toronto. As many manufacturers, who have been members of the Association for years, have not visited Toronto recently, this and the succeeding photographs have been published to show them what their Association offices look like, and to give them a glimpse of their officials in the various departments. This photograph shows the General Office. On the right is Mr. J. W. Winfield, Accountant of the Association, and one of the first officials employed by it. In the centre is Miss Morgan, Chief Stenographer and her Assistants, and in the background Mr. S. B. Brown, Assistant to the Manager of the Transportation Department. This office handles the accounts and also the correspondence which is constantly passing between the Head Office and the 3,100 members of the Association.



COUNCIL CHAMBER OF THE ASSOCIATION

IN the Council Chamber of the Association, the Executive Council holds its sessions. Prior to the acquisition of this room, it was necessary to engage suitable accommodation in other buildings. When the Executive Council is not in session, this room is divided into two Committee rooms for the convenience of the Committees and Trade Sections of the Association. It is in this room that matters pertaining to the Association are thoroughly discussed and policies are framed. Manufacturers congregate here from all the Provinces of Canada, representing the various industries. Decisions, which are embodied in regulations and memorials to be forwarded to the proper authorities, issue from Council and Committees to the various executive officers of the Association. The advantage of having the Council Chamber in the suite of rooms containing the department offices is apparent. Council meetings, which were formerly held monthly, are now held at longer intervals of two or three months. This change is due to the fact that the new Executive Committee, or Board of Directors, attends to many details which, previously, came before Council. Since the creation of the Executive Committee, Council has become more a deliberative body which formulates and controls the policies of the Association.



OFFICE OF THE GENERAL SECRETARY

THE General Secretary of the Canadian Manufacturers Association is the chief executive officer and is in charge of the rest of the staff. The Association is governed by the Executive Council, which, in turn, delegates considerable authority to the Executive Committee, composed of five ex-officio and six elected members, all members of Council. The General Secretary, as secretary of the Executive Committee, is in a similar position to that which the manager of a company holds in regard to the directorate.

In the photograph is Mr. G. M. Murray, who, since 1907, has been General Secretary.

After graduating from the University of Toronto in 1898, Mr. Murray spent three or four years in the service of mining and exploration companies in Northern Ontario. In 1904 he became the Editor of INDUSTRIAL CANADA, the official organ of the Canadian Manufacturers Association, and in 1906 was appointed Assistant Secretary, receiving the appointment as Secretary in the following year. He has held the position continuously since that date. In 1910, he was appointed a member of the Royal Commission on Industrial Training and Technical Education which conducted investigations in America and Europe.



TRANSPORTATION DEPARTMENT

THIS is the Department which deals with transportation problems of the manufacturers of Canada. Freight and express rates, bills of lading, demurrage and other rules, freight classification and conditions of carriage, minimum carload weights, siding agreements, telegraph forms, and many other matters are constantly arising and demand solution. The adjustment of such problems is extremely technical. The manager of the Department appears frequently before the Dominion Railway Commission and other bodies, representing the Association. Mr. J. E. Walsh, the present manager, has been in railroad work since he completed his education. He commenced his career with the Canada Atlantic Railway and remained with that road for twenty years. When the Canada Atlantic was reorganized he was given charge of the ticket and baggage department. During his connection with that road, he passed through all of the departments. He was with the Richelieu & Ontario Navigation Company for a time as assistant to the General Manager and, on leaving the R. & O., was engaged by the Federal Government on the Georgian Bay survey. He has been with the Canadian Manufacturers Association, as Transportation Manager, since 1907.

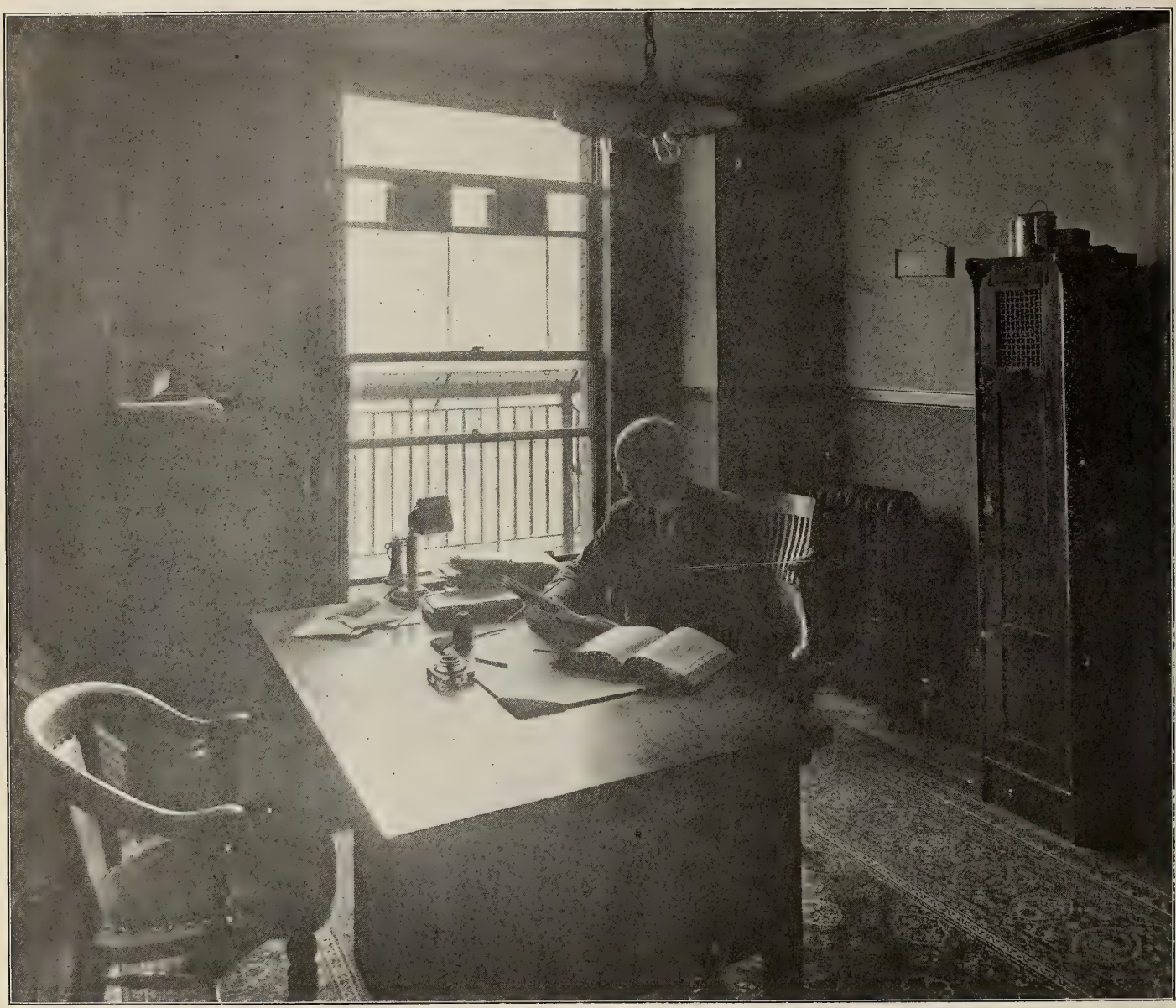


INSURANCE DEPARTMENT

INSTEAD of having one person as its manager, the Insurance Department of the Association has a company, namely, Willis, Faber & Co., Limited. This is a department which looks after all matters pertaining to fire insurance. It furnishes a comprehensive service. Policies are examined, by experts, risks are inspected and improvements to property recommended. Insurance is re-arranged. Advice is given on building construction and sprinkler installation. In cases of fire, the losses are adjusted by experienced men.

Willis, Faber & Company have extensive connections and are regarded as authorities upon insurance. They have recently assumed the management of the Insurance Department and intend to emphasize the value and elaborate the character of the various services the department is prepared to afford. They also propose to enlarge upon certain aspects of insurance which their experience has shown them business men are not as familiar with as they should be.

The function of the Department is essentially advisory. In their private capacity as insurance brokers, with a business which is almost world-wide, they are able to serve to advantage members of the Association in the placing of insurance.



TARIFF DEPARTMENT

THIS photograph shows the office of the Tariff Department of the Association. The preparation of cases asking for departmental rulings, decisions of the Board of Customs and Orders-in-Council, are often too complicated to be mastered by the manufacturer without a waste of valuable time. Entries, post entries, dump duties, refunds and seizures, result from difficulties of interpretation. The Tariff Manager can assist with these problems and can also give timely advice in connection with applications for drawbacks of duties paid. He is in a position to explain foreign as well as domestic tariffs.

Mr. J. R. K. Bristol, the present Manager of the Department, was twenty-three years in the Customs Service at Ottawa before accepting his present position. He acted as Private Secretary to the Honorable N. Clark Wallace and the Honorable John F. Woods, Comptrollers of Customs. Later he was appointed to the Board of Customs, which is practically a committee of tariff judges and experts. He was also an Inspector of Customs, and afterwards appointed Chief Dominion Appraiser, and was a member of the Statistical Commission which classified the statistics issued by the Dominion Government. Mr. Bristol has been in the employ of the Association since the winter of 1912.



LEGAL DEPARTMENT

THIS is the Legal Department of the Association. The Legal Secretary, Mr. F. W. Wegenast, is at present in England appearing before the Privy Council in regard to the British Columbia Foreign Companies' Licensing Act.

The present occupant of the office is Mr. N. A. Keys, Assistant to the Legal Secretary, who is conducting the work of the office during Mr. Wegenast's absence.

The Department deals with all legal questions and also with Workmen's Compensation. It keeps in touch with the various legislatures and courts, and decisions of interest to manufacturers are recorded. As manufacturers are frequently victims of hasty and confiscatory legislation, the Legal Department must be on the alert to safeguard their interests. The passage of one unfair law may have disastrous consequences.

Mr. Wegenast, who is a regularly qualified barrister, and a graduate of Osgoode Hall, Toronto, is an authority on commercial law and Workmen's Compensation. He is the author of the volume entitled "Extra-Provincial Corporations" and acts as Secretary of the Workmen's Compensation Committee.



INDUSTRIAL CANADA DEPARTMENT

THIS is the home of INDUSTRIAL CANADA, the official organ of the Canadian Manufacturers Association. Fourteen years ago, INDUSTRIAL CANADA was first issued as a four-page pamphlet. Now, it is a 120-page monthly magazine, printed on coated paper, with gross earnings of about $30,000 per annum. It is supposed to speak for the manufacturing interests, to constitute a medium for the interchange of information among the members, and to publish commercial news and articles interesting to manufacturers.

On the left is Mr. F. P. Megan, Advertising Manager of INDUSTRIAL CANADA and of the *Canadian Trade Index,* the other publication owned by the Association. After graduating from the University of Toronto in 1903, Mr. Megan was engaged in publishing work until 1906, when he became editor of INDUSTRIAL CANADA. He resigned at the beginning of 1912 to accept the position which he now occupies.

On the right is Mr. J. T. Stirrett, Editor of INDUSTRIAL CANADA, who graduated from the University of Toronto in 1908. He was engaged in daily newspaper work for three and a half years before securing his present position.

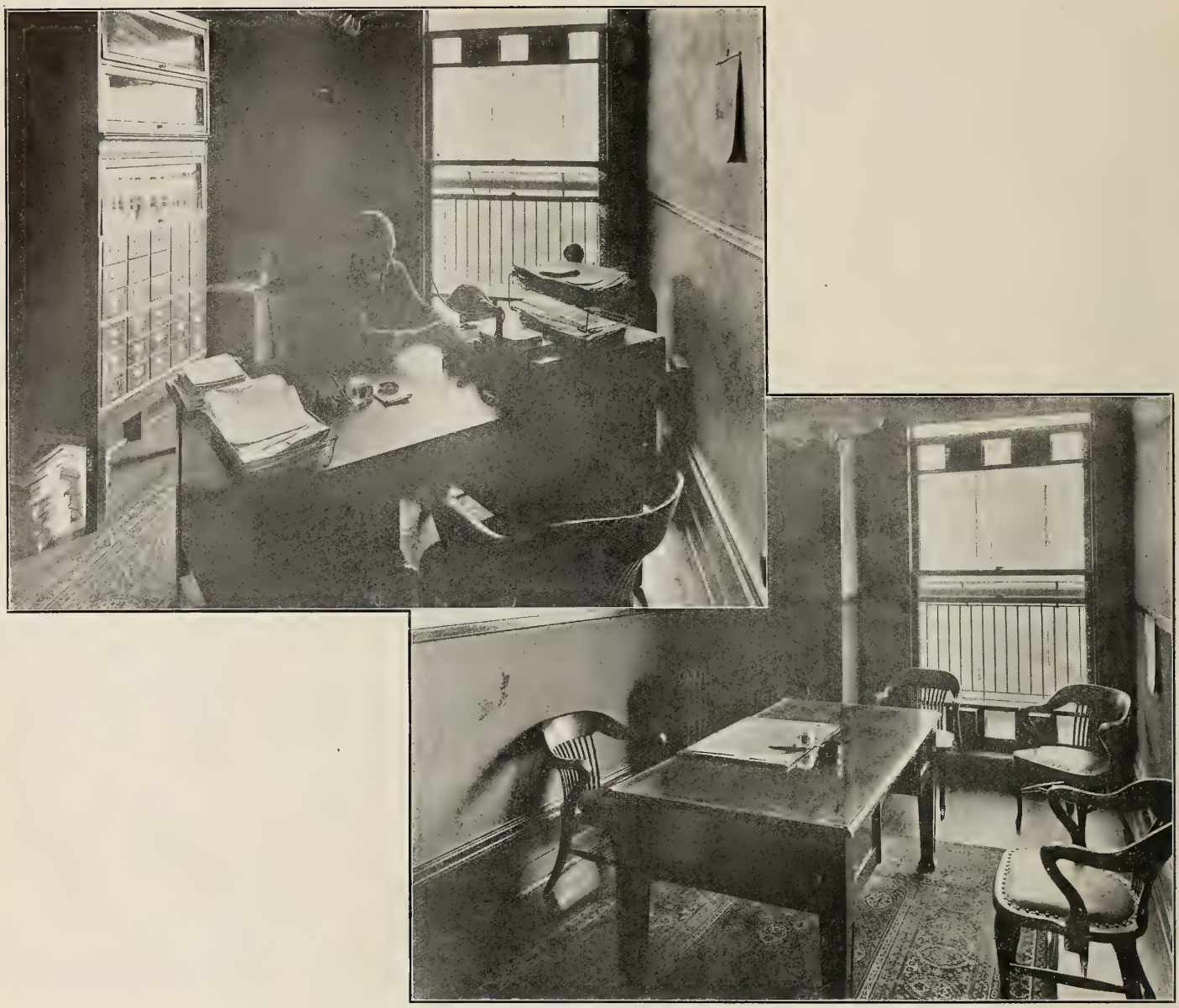


TORONTO BRANCH OFFICE

THE Toronto Branch handles all matters which are of interest to the manufacturers resident in Toronto. As there are 730 members of the Association in Toronto, the business transacted is considerable.

Branches of the Association in larger cities have obtained considerable influence in municipal affairs. Manufacturers are interested in such matters as water supply, housing of the poor, hospital accommodation, transportation, supply of electric power for factories; union wages; supply of gas and electricity for homes, etc. In fact, it would be difficult to name one important municipal problem which does not concern the manufacturer, who is a large employer of labor and taxpayer. Consequently, the secretary of an organization such as the Toronto Branch, has plenty of opportunity to use ability and energy.

In the photograph is Mr. J. M. McIntosh, Secretary of the Toronto Branch, and assistant to the General Secretary. Prior to accepting his present position, Mr. McIntosh spent nineteen years in banking. He entered that business at an early age and rose through the various departments to the managership of the Dominion Bank at Brandon, Man., where he remained for five years. His experience also includes considerable service in Winnipeg and Toronto.



CANADIAN TRADE INDEX DEPARTMENT AND WRITING ROOM

ON the left appears the office in which the *Canadian Trade Index* is compiled. This is a publication which belongs to the Association and shows by headings who are the makers of every article manufactured in the Dominion of Canada. The book is published every three years and is issued free to all the members of the Association. Mr. A. Marshall, who is in charge of the Index and the Reference Department of the Association, was appointed in 1912. He was educated in the University of Toronto.

The room on the right of the photograph is the Writing Room, which is used by members of the Association who are visiting in the City and wish to conduct their correspondence. A stenographer from the General Office will take dictation for visiting members. This room was equipped in the hope that members would be encouraged to use freely the offices of the Association. As members, they have ready access to the General Secretary and Managers of the Departments. It is regrettable that a considerable number of members have not taken the opportunity to avail themselves of all the assistance which their Association can give them. Come in and see the offices and officials. Also: use them.

IMPORTANT DECISION AFFECTING THE PLACING OF CARS ON INDUSTRIAL TRACKS OR PRIVATE SIDINGS

THE Interstate Commerce Commission made an order in April, 1910, directing certain railways to "desist from exacting their present charge of $2.50 per car for delivering and receiving carload freight to and from industries located upon spurs and sidetracks within their respective switching limits" in Los Angeles, Cal., when such carload freight "is moving in interstate commerce incidentally to a system-line haul." It also prohibited the exaction of any charge whatever, other than the charge for transportation from points of origin to destination, for delivering or receiving carload freight in such cases.

This Order found its way to the Supreme Court of the United States. That body, in an opinion just delivered by Justice Hughes, upholds the ruling of the Commission. The railways in their appeal stated that they had established in the city of Los Angeles their public terminals including what are known as team tracks and freight sheds for the accommodation of the public in receiving and delivering carload freight; that these facilities are entirely adequate for the purpose and are sufficient to handle all the carload freight shipped or delivered in the city including that now received or delivered upon the industrial spur tracks in question; that the spur track has been established simply for the convenience of the shippers thus served; that it is a service essentially distinct from the line haul, and additional thereto, being of great benefit in the saving of cartage charges to the favored shippers for whose use the spur tracks were constructed, etc.

The Commission found that spur tracks were portions of the terminal facilities of the carriers with whose lines they connected, being distinguished from mere plant facilities.

"Each of the spurs here considered, said the Commission, is in a real sense the railroad terminal at which the carrier receives and delivers freight."

The Commission thus described the character of the service in question: "Spur track delivery is a substitute service, a service which it has solicited the right to give, a service which cost the industry for the installation of the track and the use of its property as a railway terminal. It is a service over the carrier's own rails to a point where it yields possession of the property transported and which involves no greater expense than would team track delivery. It relieves the carrier's team tracks and sheds, necessitating less outlay for expense of yards in a crowded city, promotes the speedy release of equipment, and vastly aids in conducting commerce which is greater than the carrier's own facilities could freely, adequately and economically handle."

"Again it is not to be overlooked that the delivery given on an industry spur is not supplemental to any other delivery. Cars destined to industry spurs are not placed first at a spur, depot or on the team tracks, or at the sheds and later switched to oblige the consignee."

"Additional charge may be made when additional service is given. But the service here given is not additional to that for which the rate pays. If the shipper pays for team track delivery and does not receive it, but asks instead and is given a side track delivery which costs the carrier no more, he may not be compelled to pay an additional charge upon the assumption that he has received terminal team track service which has not been given. The carrier may not so construct its rates as to compel an extra charge for like service, and this in our judgment the defendants at Los Angeles have done."

The fact of the United States Supreme Court having upheld the ruling of the Commission will undoubtedly affect the present agitation in the United States for a separate charge for spotting cars, which was suggested by Counsel for the Interstate Commerce Commission in the advanced rate case now under consideration, as a means by which the railways might increase their revenues without being permitted to advance their freight rates.



"Joe, if you were not on strike this would be pay day."
—"American Employer."

A CONTRACT CANCELLED.

The Dominion Government has cancelled the contract of Messrs. Connolly & Charleson, who were erecting new steamship berths at West St. John, and announces that other steps will be taken to hasten this great work, in order that at least two more steamship berths may be available for use next winter. The Government is also considering at the present time a request of the city council that two steamship berths, each about eight hundred feet long, be constructed on the east side of the harbor near its mouth, and near the large sugar refinery, on which construction work is now well advanced and being pushed with great energy. More wharves are needed on the east side of the harbor to meet the growing demands of the traffic of the port, and if the Government favorably regards the city's request there will be great activity in construction work on both sides of the present harbor, in addition to the great work in progress in Courtenay Bay.



General View of Montreal Harbor Showing the Big Elevator

ADDRESS OF MR C. B. GORDON, PRESIDENT

At the Annual Meeting of the Canadian Manufacturers Association, Montreal, June 9, 1914

AMONG the duties attaching to the position with which, through your kindness, I have been honored this past year, there remains one to be discharged which I approach with a good deal of hesitation. The Convention of the Canadian Manufacturers Association is, or should be, the most important annual gathering of business men in Canada, and the address of its retiring President should adequately reflect both the breadth of its work and the soundness of its principles. To do justice to a subject that covers a field as wide as the Dominion itself, and that involves a discussion of the principles underlying so many phases of our national progress, one should have a wealth of information and a clearness of vision far beyond anything it has ever been my good fortune to possess.



MR. C. B. GORDON, MONTREAL
Dominion Textile Co., Ltd., Retiring President, C.M.A.

I shall not attempt therefore a task to which I feel myself unequal. On the other hand, I have a due sense of the responsibility which rests upon me to offer some contribution of thought to a meeting that will prove to be worth while only according as it gives rise to real thought and stimulates right endeavor. For after all I take it that we are here to do more than pass in review the things that we have done and the things we have tried to do. Results and failures, of course, have their significance for us; they should be carefully inventoried and studied, with a view to their extension in the one direction, and their correctness in the other. But we fail in our attainment of the real and lasting benefits we should derive from our Association in these meetings if we do not try to enrich one another by a free exchange of our thoughts and ideas, half formulated though they may be, on matters of mutual concern. Only by so doing can we correct our prospective; only as our prospective is correct can we see conditions and observe tendencies as they actually exist; only as we have the true vision of conditions and tendencies can we build with safety for the future.

From a manufacturing standpoint a survey of the past year discloses a number of happenings that have touched us closely and aroused our apprehensions. The agitation for free wheat and free agricultural implements, with its sequel of a strongly protective Budget Speech, is perhaps deserving of first mention. Of almost equal importance has been the Canadian Northern crisis, with its attendant possibilities of widespread trouble, now fortunately set at rest. Workmen's compensation legislation in Ontario is another matter of deep interest and concern to some of us directly, to others indirectly.

But however large these and similar problems have loomed before us at the time, they have already begun to lose their significance compared with a problem that has been with us throughout the year, and which threatens to keep us enveloped in its shadow for some months to come. The



Manufacturers Who Attended the Montreal Convention spent a Delightful Afternoon on a Harbor Trip

business depression is a trouble we cannot afford to make light of. Every day brings fresh reminders of its existence, reminders that lead us to speculate as to its causes, its probable duration, and the extent to which our resources may be taxed in surviving it.

To none of us is given the power to forecast the future, and I do not intend to indulge in any prophetic utterances. I will not, therefore, waste any time in idle surmises as to the recovery which to-morrow may or may not have in store. It should be quite possible for us, however, to associate the depression with some of the events that have occasioned it as well as with some of the conditions and tendencies by which it has been accompanied, and so turn an unfortunate situation to good account by acquiring a better understanding of our inherent weaknesses.

An investigation of any widespread depression usually shows two sets of influences at work, one operating within the country, the other without. Canada's present trouble is no exception to the rule. Her domestic policy may be accountable for a great deal, but external affairs have played by no means an unimportant part.

Dependent as we are upon foreign capital to finance our development, we have been keenly sensitive to conditions affecting the money markets of the world. A year ago we were citing the war in the Balkans as one of the important factors contributing to the financial stringency. In the ordinary course of events it would have taken at least a few years to fully recover from the disturbances to capital which followed in the train of this event. But before that recovery had fairly commenced the Ulster situation assumed an ominous look, and rapidly developed an acuteness that caused the purse-strings to be tightened again. Still more recently the situation has been aggravated by the war in Mexico, and the jeopardy in which hundreds of millions of foreign investments in that country were placed by the lawless deeds of warring factions. The cumulative effect of such conditions upon our borrowing power has necessarily been pronounced, and this of itself would have been sufficient to cause us to experience a decided check.

But it is a mistake to suppose that the depression we are suffering from is peculiar to Canada or even to North America. Were that the case, Canadian securities would be in disfavor in London, and other countries would be enjoying the patronage that has been cut off from us. The best information all goes to show that this is not so, that the depression is more or less world-wide, and that every nation is feeling the pinch of hard times. Financial firms in London that have specialized in Canada have on their hands, it is true, some undigested securities, but the same is almost equally true of firms that have specialized in Mexican, or south American, or South African, or Far Eastern securities. All have had their troubles, just as every country has had its setbacks. Canada's credit in London is, I believe, and I may speak from actual observation, having been over there recently, better than the average, but, like the others, she need not look for relief until it is available for all.

As pointed out in the annual address of the President last year, the rapid development of the country made it necessary for us to effect heavy loans in London and elsewhere. Enormous sums have been spent on railroads, waterways, irrigation schemes, the development of mining of different kinds, and the enlargement of manufacturing establishments. Dominion and Provincial Legislatures have assisted in the disposal of railroad bonds and debentures by guaranteeing them. Investors abroad have taken it for granted that this country knew what it was doing, and that our Legislatures had convinced themselves that the enterprises to which they were lending their credit were absolutely sound.

Two more transcontinental roads have been built, between the east and the west, with long connecting links of doubtful value, and branch lines have been built in many parts as prospective feeders to these transcontinental systems. Largely as a result of our railroad policy, and the activity which has prevailed all over the country in this direction, and the huge sums of money which have been spent, and are still being spent, cities and towns along these lines have in their turn also borrowed money and spent it in municipal improvements in order to keep up with the demands which they thought would be made upon them. As I said in my address at the Halifax banquet last September, I think most of this borrowing had been amply justified, and that the money thus obtained has been well spent and honestly invested.

But if we are to get the full benefit of all these investments of capital which we have been making it must be from something more than the influx of agriculturists alone. If there was time, and if we did not all believe in it already, I might point out to you the many other ways in which wealth may be produced in Canada. I might speak to you

(Continued on page 1582.)

PRESIDENT-ELECT HENDERSON'S ADDRESS

IT is no small honor to have been elected President of the Canadian Manufacturers Association, the affairs of which have been directed from time to time by some of the brightest minds, men who have devoted themselves to the development of Canada, and who have taken an active interest, not only in the industrial progress of the country, but also in all matters which affect the welfare of the whole people. I hope, therefore, that during the time I hold office, with your assistance, members of the Association, I may be able to maintain the tradition, and while I fully realize my limitations and short-comings, trust that at the end of my term I may have done something which will even still more enhance the value of the organization, not only to the members, but also to the Dominion.

Growth of Manufacturing.

The growth of the Canadian Manufacturers Association has been most remarkable. Fourteen years ago, the organization was of small importance. It was entirely provincial, having only 132 members, all of whom were resident in Ontario. Statistics from the census of 1900 show that the value of all the products manufactured in Ontario was only $241,533,486. By 1910, when the next census was taken, the Canadian Manufacturers Association had become a national organization, strongly represented in all the provinces, with a total membership of 2,608, while the products of Canada had reached the huge total of $1,165,975,639. At the present time the membership stands at 3,043; and in the absence of statistics later than these of the last census, I would hazard an estimate that the value of the goods annually manufactured in Canada is now fully $1,500,000,000, three-quarters of which is produced by the members of this Association. Such a growth I think is unparalleled in history by any country having fewer than eight million people, and shows clearly that the National Policy must have some connection with, nay, indeed, that it has been the real cause of this wonderful achievement. It is gratifying to notice that growth is not confined to industry, but also extends to the oldest, most important, and most responsible of all industries —agriculture, including all its great branches. Between 1900 and 1911 the value of agricultural products increased from $363,000,000 to $695,000,000. This itself is, I venture to say, sufficient to show that industrial growth has not retarded the agricultural interests, but, on the contrary, the two have advanced side by side, and attained such a measure of prosperity as to elicit the admiration and wonder of the world.

Interdependence of Agriculture and Industry.

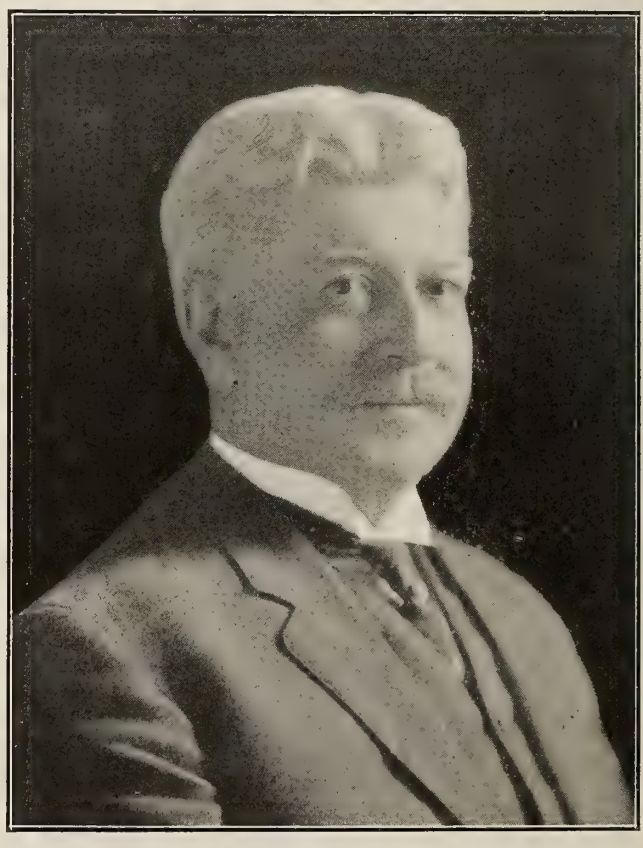
I stated that agriculture was the oldest occupation, for are we not told in Holy Writ that our first parent, Adam, when sent out of the Garden, was told to "till the ground," and moreover, is it not written, "In the sweat of thy face shalt thou eat bread," a command many of us are prone to forget. Manufacturing was also one of the first occupations, for the ancient legend describes the labors of old Tubal-Cain, "an instructor of every artificer in brass and iron." So from the beginning agriculture and manufacturing have been interdependent and necessary to mankind.

Agriculture is the most important, for without the products of the farm, man could not exist, but what would happen to the human race if it were suddenly deprived of the products of the factories? As population increased, manufacturing developed; all could not till the soil and tend the flocks, but some of the people engaged themselves in the building of shelters, the manufacture of implements, the weaving of cloth, and making of articles necessary for the use of those whose occupation was the cultivation of the land, and by means of barter all were enabled to live. Such days have long passed, but the necessity for each class of products is as great as ever. Whoever makes strife between the two great interests, is an enemy to the welfare of the State. The prosperity of manufacturing depends on agriculture, and without the markets provided by those engaged in manufacturing, either at home or abroad, agriculture cannot prosper profitably in any country, and no foreign market equals the Home Market.

Many of those who spread dissension (I do not say all, but some of them), those who make the most clamour, "they toil not, neither do they spin," but are like the drones in a beehive who made a great buzzing and produce nothing, but would rather eat the honey provided by the workers.

What the Association Is.

As I have stated in public before, the Canadian Manufacturers Association is in reality a Parliament of industrial activities of the country, but unlike other Parliaments, is not affected by politics, race or creed. This organization is composed of all shades of opinion, and has among its members many men of different nationalities, all joined together for the common purpose of the industrial development of Canada; not for selfish interests, not for maintenance of high tariffs, not for the slashing and cutting of transportation rates, or for urging that all legislation should be in its favor. As a body, it endorses that which will be for the benefit of the



MR. E. G. HENDERSON, WINDSOR
Canadian Salt Co., Limited, Elected President, C.M.A.



PRESENT AND PAST

Mr. E. G. Henderson (on the left) the New President, and Mr. C. B. Gordon, the Retiring President, at the Convention

whole community, it will protest against the lowering of tariffs to a point which will affect the destruction of those industries which have required years of industry, foresight and experience, to bring to their present position; it is opposed to prohibitive duties as it is opposed to Free Trade, but it will always ask for the retention of those moderate duties which will give the home market to the Canadian manufacturer and enable him to compete with the foreign manufacturer, the purchase of whose wares depletes the country of so much labor and gold.

Policy re Transportation.

As regards the cost of transportation, it is a great question, one which affects every individual in the country, as well as the railways themselves. We have been building railways faster than any other country of our population since the world began; we have been pouring out money like water to provide competing transcontinental lines, and yet one is tempted to stop and ponder if it has been the wisest course to pursue, in order to ensure the result. May it not rather tend in the opposite direction?

I know Canada as few men do. I knew it when the north shore of Lake Superior was as little known as Labrador is to-day, when the great prairie lands were peopled by roaming bands of Indians, and traversed by buffalo and wild animals. I have taken part in the building of the great highway of steel, which more than anything else tended to the development of the North-west, and the whole of Canada. I have seen the magic transformation, the golden waving fields of grain, the creation of great cities throbbing with human life and activity, the thousands and tens of thousands who have flocked to our shores, and yet while I see all this and have faith as few have in the ultimate destiny of our loved Dominion, I cannot help wondering if, in our anxiety, to develop the great heritage we have not been over-fast and ambitious? It is an undeniable fact that interest on bonds must be paid; investors must receive a return for their money; expenses must be met, and credit maintained, and the question is, can this be done and can we maintain the present freight rates, let alone lower them? Time will tell, and for those in authority there is a weighty task ahead.

The Manufacturers Association will always be found ready and willing to co-operate with the transportation companies in what is considered fair and reasonable, and will be found as willing to oppose (what to-day seems a most popular cry) the lowering of freight rates to an utterly unprofitable price, as they will be to oppose unreasonable and extortionate rates.

While speaking of transportation, I might add that the proposal to place water transportation companies under the jurisdiction of the Railway Commission does not seem to commend itself to those whose business demands the necessity of transportation by water. It is quite true that few actions by any Government had a more beneficial effect on the welfare of the country than the creation of the Railway Commission, yet it is considered, and I think rightly so, that the action suggested would have rather the opposite effect than that intended, and would prevent that competition which is absolutely essential. No vessel or line of vessels can have a monopoly for any length of time, because while mergers and combinations may be effected, yet any vessel is free to travel the great waterways, while there can be, and is no competition by rail, other than prompt and safe service and adequate provision of cars for the traffic.

The Association and Politics.

I stated that this Association has no politics, hence the freedom from restraint in discussing and considering the great problems that confront it; each member exercises his own judgment and expresses his opinion without fear or favor, therefore the result arrived at has no bias. It is quite true perhaps that government by party is the model form, but some wonder if politics here have not in many cases degenerated into personal abuse, rather than sound argument as to

(Continued on page 1584.)

THE FOUR CLASSES OF WORKERS

By SIR GEORGE FOSTER

At the Banquet of the Canadian Manufacturers Association in Montreal on June 11th

I DON'T know whether it is fanciful or not, but the thought just struck me last night when I saw almost straight before me this great busy hive of Canada, eight millions of people, almost every one busy on different pursuits, multitudinous almost as the people themselves, and yet you can bring them down into classes, and just for the amusement of it I tried to classify them, and I will tell you how I classified these different pursuits. There are four of them. There are, first, the hunters; second, the growers; third, the makers; and fourth, the helpers; and all of them in the mass make up the great body of consumers.

The Followers of Nimrod.

Who are the hunters? Your miner who hunts for something that already exists and is concealed. He hunts with his pick and shovel. There is the fisherman who hunts for what already exists, not produced by himself. He hunts it with his net and hook; and there is the lumberman who hunts for something that is already grown or is growing, and he hunts it with his saw and his axe. There is the hunter of old, in the pure sense of the word, the man who hunts all kinds of game, and does it with his gun and trap. These are the hunters of the world, the hunters of Canada, continually going after something that already exists, getting it out from its concealed place, capturing it and bringing it into the general fund for the development and comfort and necessity of the world. But, not one of these men creates anything or produces anything; they simply hunt and gather, but it is a great occupation, and Canada and the world would be badly off if we didn't have these hunters in the industrial world.

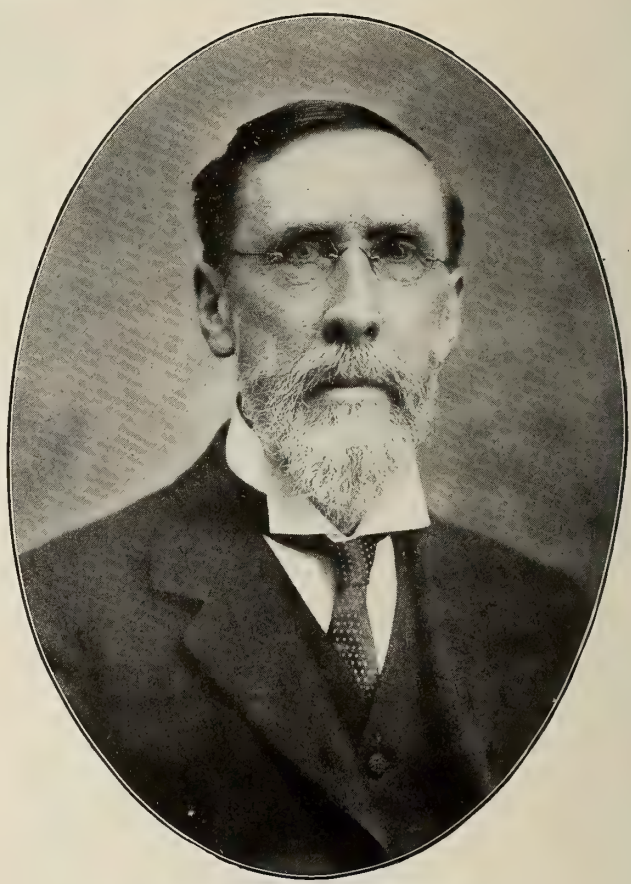
The Second Class.

The next are your growers. They do something different from what the hunters do; they are creative, whilst the others are destructive. The miner puts nothing back. When he seizes his prey in the bowels of the earth he draws it out but nothing is put back to take its place, and so with all the others of the hunter class, but the grower is creative. He takes one grain and he puts it away and cares for it, and behold forty grains come up where one has been put in; so with all the multitude of growers in the agricultural world, they are the creative workers of Canada. They put in what is but little, and they bring out what is tremendously great and important. They are the king class of all the workers in Canada or in any other country; they are the bottom, basic foundation of all prosperity and of all happiness and progress and development.

Those Who Manufacture.

Then you come to the other class, they are the makers. The material is there, they don't make the material, but they divide it and subdivide it and polish it and smelt it and mould it and form it into a thousand different forms of usefulness and beauty. The makers, the manufacturers, the workers with the hand and what represents the hand in the mighty machinery of to-day take an entirely different course, they conserve in an entirely different way in the great economy of the business of the world. These men are the important classes to-day in this or in any other great country.

Then the fourth class is the class of helpers. They stand by and see the others work, they stand by and help the others work. There is the banker who supplies the money, there is the carrier who takes the products when they are made or grown or hunted, there are the thousand and one helping hands that all through the stream of production have been obtained, all through the stream of distribution, ready willing workers to carry out their part of the economy.



SIR GEORGE FOSTER
Minister of Trade and Commerce

All Classes Interdependent.

Now let me just ask you to take those four classes, turn them all over and think about them. Not a single one of them could exist if it was not for the others. Every one of them in his existence and in his work makes it better for the other. They are one family, and why should there be brawling and quarrels between them? If none of these were ever organized there would have been no quarreling, but the very moment you organize an industry you begin to present a face for antagonism; points of difference are emphasized, creeds are made, industrial religions are built up; you get the clergy and the bishopric and everything else in it, and the other fellows copy you and do the same, and there you have contention and warfare. What we need to do is dissolve, what do we call it, the bishops and get them all back into the laity and let them hold a general conference meeting, and if you do, and do that in the proper spirit, I am sure there will be little rivalry thereafter between these differ-

(Continued on page 1586.)

WESTERN AGRICULTURAL PROBLEMS

By CHARLES A. DUNNING

Manager Saskatchewan Co-operative Elevator Co., Before the C. M. A. Convention in Montreal on June 10th

IN the letter of invitation addressed to me by your Secretary, he stated that it was the desire of the Canadian Manufacturers Association to meet the farmers' organization of Western Canada to overcome, so far as possible, any antagonism which may exist at the present time between your organization and ours; and my chief reason for travelling these thousands of miles to speak to you is that I, too, have a very keen desire to see the fact recognized that the interests of the farmer and manufacturer are really the same.

Distance Estranges.

I think that one reason for the present antagonism is the fact that there are thousands of miles of rocky and comparatively unproductive country stretching between the East and the West, the West being mainly devoted to agriculture, the East being mainly devoted to manufacture. We are in great danger, as a nation, that we may build up on either side of the thousands of miles of rocky country two different types of people, each class having different ideas. We are in that stage of our development now where we may produce that result or we may overcome it, and we can best overcome it by means of representatives of each body getting around the same table and mixing together.

Agricultural Problems of Saskatchewan.

In discussing Western agricultural problems, one has to cover a very wide field; so I have determined, rather than weary you with details and statistics, to lay before you the situation in which we have found ourselves as an agricultural community in Saskatchewan, more particularly during the last few years. It became apparent some three or four years ago that our people were leaving the land, and that our newcomers were not going on the land to the same extent that they had previously done. Thinking men throughout the West took cognizance of this fact. The tendency grew to such an extent that last year the Provincial Government of Saskatchewan thought it was time that the causes for this should be investigated. They appointed a Commission to investigate agricultural conditions, generally, grain markets, agricultural credits, and in short everything affecting the welfare of the farmer or the farms. I was a member of that Commission. It reported just a few months ago to the Provincial Government and I would like to recommend the Secretary of the Canadian Manufacturers Association to obtain for the benefit of the members of this organization copies of that report in order that Canadian manufacturers may really understand the West. It is important that the Grain Growers' Association in the West should really understand the East, and it is also of the utmost importance that you gentlemen should understand the West. Make no mistake about it, we do not understand one another as much as we ought to in these days.

Does Not Pay Well.

The Commission found that agriculture at the present time in the Province of Saskatchewan is not sufficiently remunerative and not sufficiently attractive to keep the people on the land and to take to the land those immigrants that come to our Western provinces. The remuneration of the farmer we found has been steadily decreasing, due to two principal causes. The first is the increased cost of production, the increase in the cost of practically all of the elements which enter into the production of grain particularly. The second great cause is the increased cost to the farmer of getting his product to the ultimate market which, in the case of grain, of course, is Europe. As a matter of fact the price to the farmer of all grain which is used for home consumption here in this country, is set by the price of our export grain for the reason that the bulk of our grain is exported at the present time. We found that the cost of the elements entering into production had increased slightly over twelve per cent. since the year 1909. The increase in the cost of exporting the grain to its ultimate market in the same period was over 14 per cent. In that connection we are face to face with a very serious situation. The Saskatchewan farmer is in a more unfavorable position in relation to his ultimate market than any other grain grower for export in the world. Just think of the route over which his grain has to travel, think of the number of times it has to be transferred from rail to lake, from lake again to rail, possibly to lake again on occasion, and then to ocean, all of which is expensive, uneconomic, needing to be developed, needing to be improved. The Argentine farmer, one of our greatest competitors, grows his grain within a few hundred miles of one of the world's greatest rivers; cheap water transportation is available to him at very short distance from his farm. Australia, one of our greatest potential competitors, not yet producing a very great quantity of wheat, but with possibilities for the future, produces all her wheat around the seacoast within easy distance of cheap water transportation. Russia, one of the greatest wheat producing countries in the world, has a great home consuming population, great rivers, cheap labor. The United States, has a great home market, particularly for that class of wheat which we in the West produce. That is the position of the Western farmer in relation to his competitors, and remember, they are competing with him on the freest market in the world, the Old Country market, the British market.

These two increases, the increase, first, in the cost of production, second, in the cost of transportation, has brought the cost of production very perilously close to the net price received by the farmer for his grain. The conditions are such that grain growing is not sufficiently remunerative at the present time and under the present conditions.

Mixed Farming.

You will expect me to deal, I am sure, with the question of better farming, or mixed farming. In relation to this question we are constantly receiving advice. I think every commercial traveller in Western Canada, and I am sure every banker, and he may only be twenty years of age, and never have been on a farm, or if he has, he got off it pretty quickly, this class of men, in addition to the men who do understand farming, are constantly advising us to go in for mixed farming. In connection with grain growing alone, the condition has arrived where a man must grow at least twenty bushels per acre of Number 2 Northern Wheat in order to make ends meet; that is, under conditions as they existed during the years 1909 to 1913. I am a mixed farmer. I do grow, in addition to wheat, oats, barley, and I raise horses and cattle and anything else that will grow on the farm profitably. I study the cost of operation in relation to my own business just the same as a manufacturer does in making his product. But,

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THREE MEN

By BRITTON COOKE

THREE men met in the lamp-lit railway station of an up-country town in Ontario. They were men of fifty and over, silent men, with strong faces, deep-etched with the lines which only hardship, endurance and a difficult victory can make. Each was comfortably yet plainly dressed. Each seemed self-absorbed. They appeared to be strangers to one another.

A young man foppishly dressed entered presently, throwing back the lapels of his fashionable raincoat as he approached the clerk's wicket. He was obviously care-free, flippant, and irresponsible. When he sauntered out again after buying a ticket and a chair-car seat, the three almost involuntarily exchanged glances of disapproval.

"I had to *work* for my money," said one.

"I had to fight for all I ever got," added a second.

"Nobody gave me money to ride in a pullman at his age," agreed the third.

"Train's forty minutes late!" interrupted the agent, laconically, through his wicket.

"Humph! Thanks"—from the three.

Silence.

* * *

The first of the three stole a glance at the others.

"Look at those two men," he ruminated. "Wonder who they are? Farmers, I suppose, comfortable old fellows who have made their heap and retired. Self-satisfied, sure of themselves, comfortable—faces seem familiar, probably met them in the swimming hole here forty years ago. Think what I've gone through in that forty years! Wonder if they even guess what a *struggle* means." He glowered moodily at the floor.

The second looked up.

"Hm!" he exclaimed to himself, "there are two smooth-looking men. Wonder if they ever did any real work. City fellows, likely. Humph!" with a sardonic chuckle, "wonder if they ever got up at four in the morning to milk a cow. Wonder if they ever got hailed out."

The third was not even looking at his companions.

"By George," he was thinking, "some people have no troubles. Life just one long easy grade. I can remember when I took things as easy as those fellows no doubt do. It was not for long though."

The silence continued.

The first was a merchant prince.

The second was a wealthy western farmer.

The third was a manufacturer who had finally established his firm on a very wide and sound basis. They had been boys together but had forgotten one another. They were in reality three great men. I do not mean that their names are in "Who's Who," as yet—nor ever may be—but they had done important things for their country. Each was a constructive citizen.

* * *

The farmer, forty years before, had been a boy in this very town—then a prosperous place containing a blacksmith shop which was also implement factory; a flour mill and a woolen mill. He was the son of the owner of the flour-mill. When the steel rollers replaced the old stone-grinding apparatus his father had been forced out. The family was scattered. The boy, taken by an uncle on a nearby farm, worked there for a little more than his keep, for ten years. Then, chiefly on borrowed capital, he had bought a farm.

As he sat thus with the other two, waiting for the train to bear him to Toronto, where he was to get the Vancouver express that night, the lines of his face tightened at the recollection of that farm. His equity was small and his interest charges high. It cost him bitter labor to make even a living, for in his inexperience he had bought poor land with a dangerous slope to the north, and low-lying spots where the frost gathered like water and nipped the wheat at its tenderest time. He had married—he remembered how the hard work and the worry had taken the youth from his wife's face; how, not knowing any better and because he had youth and optimism, the family grew and the struggle had been intensified. Looking out of the station window into the blackness which covered the platform outside, he imagined he could see that very hundred acres and the house where the first wife finally died, and the village cemetery where she had been buried in one of the dresses she had made by her own hands, of cheese-cloth dyed at home—for she was a good woman, with fingers cunning in economy. He stood up and straightened himself and somehow felt a sort of pity for the other two, that they *could* not have known what he had known of life.

When the woman died he had gathered his children about him and, as it were, ran away—abandoned the unhappy spot, resolved that with the last few dollars remaining after paying his meagre debts he would go West. He went via the old Dawson route from the head of the lakes by barge and canoe and portage to Fort Garry. It was the route Wolseley had taken. There was no C.P.R.

He had farmed then in the West—and he gnawed his moustache as he recalled it. There were no gasoline tractors then, no motors to drive to and from town, no elaborate system of agricultural aids. He housed himself in a shack. His children he gave to a woman in Fort Garry to care for. Alone on the monotonous prairie he sweated out a section of stolid earth to be his own. There was none of the buoyant hope in the West then that there is now. It was no novel picnic. Markets were far and prices low. He made enough—no more. The iron bit into his soul. When more soil was under cultivation and the railroad had come to help him to market he was no longer capable of being an enthusiast. The world, he had learned, was a bitter place, grudging a man success. His soul reflected the callous on his palms. He was a grim man.

His boys grew. They sold the homestead at its enhanced value and went further west to Edmonton. There they homesteaded again. There they won a whole section of land—but by hard work. There were times when hail swept down the hope of the whole year's effort, when frost came, or too much rain. Only one crop in four yielded a profit. Meantime they had had to buy expensive implements. Implements!—he swore softly under his breath: it was his ambition to see that this country which he had helped to cultivate should have free trade! Free! No impediment in the way of other men who might have to struggle as he had struggled. He had won out! He would help others to win, he would help make the way easier.

The glance he gave the other two men was almost scornful in its sheer earnestness and the nobility of thought behind it. Outside it was beginning to rain. "Plenty of rain lately" he commented inwardly, "a good summer!" He was thinking of the farmers—his brethren—conscious of his class.

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THE INDUSTRIAL MUSEUM

By C. T. CURRELLY

Before the C.M.A. Annual Convention in Montreal

THE Industrial Museum in this country is in its infancy, and it is a very sad thing for us. We have so little that we have to bring it down to the one museum in Toronto, which has been open now for a few weeks. The country that is leading is Germany, which is doing it on an extraordinary system, and I know of no country that is carrying on the whole system of scientific education in the way the Germans are. I can give you an example of it in the cotton industry. They are making ordinary cheap cottons but it was difficult to compete in a certain section of foreign trade with the Manchester cotton. They turned it over to the scientific department of the big Industrial Museum in Berlin. The Museum sent a man down the East African coast. It cost them $3,000 or so to do it. He bought up designs of native weavings from every set of tribes all the way down, and stayed with them long enough to know what the designs meant: that this one will keep the spooks away from the baby, and the other will keep the spooks away from a man's wife, this one will do it at night, and the other one in the daytime and so forth. That material was brought back, systematized, and as these things are comparatively simple if handled properly, they found that one set of designs practically covered a very wide district. They went with these grouped designs to the cotton weavers and they said, "Your cotton is not quite as good as the Manchester cotton but if it will keep the spooks away from the man's wife and baby he will buy it every time in preference to the English cotton with a few X marks on the end of the bale." They did this and they knocked out two-thirds of the English cotton trade in about a year.

Museums and Industry.

The museums are being brought into the closest contact with the regular run of life and they are competing for certain industries in a way that is perfectly amazing. For example, take the furniture industry. We are importing an enormous quantity of furniture into this country. In Germany everywhere they are working up enthusiasm for furniture and for the handling of lumber. They are doing it the same way in practically every town, even thirty and forty miles apart. They are establishing large industrial museums which they are systematizing. Any town can have the service of the royal buyers. They can get almost anything they wish. If you were in one of those towns wanting to start the manufacture of certain kinds of articles, you could have some of the best specimens the world has ever made on loan. The French are doing the same, the Austrians very much the same; England, a little bit behind, is doing the same, and developing the loan collections to a high state of efficiency. I understand a similar attempt is being made out in New Zealand and Australia and, curiously enough, even the Siberian museums are taking a very important place. It was rather a surprise to me, as it also was to see the enormous sums of money being spent by the Russian Government on the Siberian Museums.

What Canada Needs.

I want first to show you what we are doing and what we hope we shall be able to do in this country, rather than give you a long account of what other people are doing. The sad thing is that we are so late in the field. Things are going up in price at tremendous speed owing to the competition for anything which is going to bear upon the manufacturers' work. Regarding chairs, for instance: a German buyer will say, "I don't care if I pay $200 for that chair if we are going to turn out 5,000 of them during the next few years, and even then it is not destroyed, but for all time to come it is to remain in the museum." A few years ago the same chair would have been bought for $30 or $40, a sum now almost multiplied by ten. Still the thing is possible in a very large number of the lines. What we are trying to do in Toronto at the present time is to get as full a series as we can in connection with the development of different manufactures, and then to arrange a system of travelling collections which will go to the different towns. Just how far that is to spread has not yet been decided, but it is to spread as wide as we can feel our way to do it, and I hope that within a very short time we shall be able to send loan collections very far afield indeed, to the towns where there are industries of certain definite kinds. We are doing this in order that we may teach the great buying public, and also, particularly, that we may train that young public of draughtsmen and designers and so forth, on whom you have to rely to such a large extent for a great part of your work. A little while ago I was told that we had brought over 300 men trained in the Old Country within a year or two—300 designers. That seems to me to be a pity and we are hoping that we shall be able to train our own designers within the very near future.

The Toronto Museum.

The first section of the Museum takes up the earliest examples of man's work. There are permanent things which have been able to survive; cut stone and bronze are very permanent things and they are so well preserved that we are able to see the way in which man mastered one problem after another, coming forward very slowly at first, and gradually gaining ground as time went on. It is very interesting to be able to train a designer by teaching him the beginning of things. It is also a great help if you can show him how we will get into a rut mentally and stick there. It took man over 3,000 years in Europe to learn to put a stick into an axe; all that time he was trying to put his axe into his stick. He had originally put his stone axe into his club and when he got a bronze axe he still tried to put it through the stick; and with all the greatness of the Egyptians they never learned to the end of the Egyptian dynasties to make some kind of hole in their axe and put the stick into that. When they got the modern way of putting a stick into an axe they got it from Babylonia, so that we never did solve that problem ourselves. I find that one can take hold of the designer who is to handle the work and see the thing through, and by letting him get into direct touch with material of this kind one can drive problems home that otherwise would be but half understood.

The Early Collections.

In the early collections we are able to show much more than you would perhaps think would remain. Of course, as I say, bronze and some of the metals and stone are permanent things that have remained. Fortunately through the climate of Egypt the world has been able to preserve a great number of things. The first division of the museum brings the primitive industries down to the manufacturing

period of the Roman Empire. That was the first time the world was unified, and one district often made things for the whole world, and the question of trade was perhaps even greater proportionately than it is at the present time. The way the climate of Egypt has preserved some things to us is really quite remarkable. In doing some work one time I found a workman's dinner; he had quail on toast. The flesh of the quail had disappeared but his toast and the bones of the quail were still quite perfect. Two stones were jammed over it. He was a workman in stone cutting We have two shawls in the museum made 2,700 years before Christ. They are most beautiful pieces of weaving, and we have a great deal of woven material going back to quite early times. It was a rather interesting find; the girl who owned those two shawls—a princess—was found lying on them; she was one of the most beautiful girls I had ever seen. She had been stripped stark naked by later tomb plunderers hunting for jewels, and then they had laid the body down, and there she had remained since 2700 B.C. as perfect as could be.

Degeneration by Copying.

Very early in man's work a feature comes up that is a warning—I am speaking now of the teaching part of the museum—and that is how very rapidly degeneration of articles can come from copying. We have one case which shows a series of lamps brought out by a firm in Alexandria just upon the introduction of Christianity. They brought out a series of lamps with the emblems of Christianity on them, that is, there was an ear of wheat, the sign of plenty, and a frog, the sign of resurrection, and then a combination of a sheaf of wheat and the frog. These were three symbols which were in common use at the time, and people were glad to have them on their lamps. I suppose the sale was very good and they were promptly copied in a little cheaper form; they went on and the drawing got worse. To begin with, the ear of wheat ended in being three knobs, then some one thought these three knobs did not look as well as they might and they began to ornament the knobs and put rings around them; the frog lost one thing after another till it got down to four strokes; the sheaf of wheat and the frog went down and lost little by little till you could finally see not even the hind legs of the frog still remaining. In about 150 years it had got down to a series of straight lines drawn all around the lamp. By having the whole series of thirty or forty put out you can see the way in which the copying had caused the degeneration; and one finds that a very large amount of manufacturing has been of this kind. It has started with someone bringing out a good thing; this is copied and copied and degenerates and degenerates, and if it were not that we started anew all the time with new things there would be no progress, there would only be degeneration.

The Tides of Prosperity.

There is another thing to be noticed in the early years and that is the way in which the manufacturer has gone up and down with the general prosperity of the country. Consider the man in the first century when the coinage was good, when Egypt was growing its fine wheat supply, when everything was doing well, and the way in which he prepared his clay for making pottery and lamps, and then compare it with the way in which he did it three centuries later when the coinage had all gone to the dogs; it is very instructive. It is a fact, and it is a fact that I think always should be driven into students of manufacture, that they have to look upon themselves as part and parcel of the age, that they are going to go up and down in the making of their own individual products very much with the rise and fall of the general level and tone of the community; that is, that if the tone of the community goes down, seemingly every product goes down. I cannot point to one single bit of manufacture which was made in Egypt after the year 300 A.D. which was of any use; evidently the workingmen's skill had gone down. There were large firms sending their product an enormous distance and their product was perfectly wretched. That is perhaps connected with economics rather than with industrial art or design, but still it is to my mind an important fact.

Skill, Not Arts Lost.

Now, there are no lost arts at all. We used to hear in this country a wonderful lecture by a distinguished American on the lost arts, but there is no such thing. Man can do to-day what he ever could do as far as art is concerned. There is much lost **skill.** One of my friends was telling me a man he was well acquainted with had been asked to go down to Hayti, in the West Indies, to talk over the matter of a railroad. He was entertained by the President and while he was there there was rather a large official dinner and he was invited to attend it. When talking to the President afterwards he wanted to see what time it was and put his hand in his pocket. "Good gracious, my watch is gone," he said. The President said, "I am extremely sorry; who sat on your left at table?" "Your Excellency," he said, "I wouldn't charge anyone with stealing it; I wouldn't have mentioned it at all, but it was a presentation watch." "Never mind," said the President, "who was it?" "To be quite exact," he said, "it was the Minister of War." The President said, "Excuse me a minute." In a few minutes he came back and said, "This is the one?" "Yes, but what in the world did he say when you charged him with stealing it?" "Oh, he doesn't know yet," said the President. Now there is a question of skill. I could take your President's watch out of his pocket, but he would know it. I hope I have illustrated the difference between lost art and lost skill. I can paint, but I can't paint as well as a Rubens can. I can mix colors all right, but I haven't the skill he had. We are in the position of having inherited all the arts men has ever practised. It is also an extraordinary thing the rapidity with which they have been developed. Now, my friend was just speaking about the rapid development of the furniture industry. It has been a great surprise to me and yet in one sense it should not have been, because the whole of the development of Greek Sculpture and Greek Architecture was a matter of about forty years: that is, within about forty years Greece raised itself from a comparatively primitive condition to the height of the world. That rise took place in forty years. We could develop ourselves, I am confident, with our raw material in comparatively few years; we can push, as far as skill goes, in any direction we want to, and the whole history of mechanics and the whole history of the objects we are trying to show in our museums prove to us that that great skill has been the result of attention not only on the part of the man who made the objects, but of the people who were buying them, the people who were getting them; that is, there was enthusiastic appreciation of the work which the man was doing.

Return to Plain Things.

Now, in these early things—I am speaking now of the early part of the museum—which we have, we are able to show the way in which ornamental design arose. I think there is nothing which has been more conspicuous to me in coming back after many years abroad than to see how particularly plain our Canadian articles have become in my absence, how very plain; what a great amount of plain paper, plain furniture, how we are stripping ourselves of ornament. The reason of that is that our ornament was essentially bad, the

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New Factory of the Northern Electric Company, Limited, Montreal, now under construction

THE NORTHERN ELECTRIC COMPANY'S NEW PLANT IN MONTREAL*

The new wire and cable plant of the Northern Electric Company, Limited, now nearing completion, occupies an area of 178,000 sq. feet (over four acres) bounded by St. Patrick, Shearer and Richardson Streets in the City of Montreal The company claim that this plant, when completed, will be the largest single plant in America for the exclusive manufacture of wires and cables. The E. G. M. Cape & Company, Limited, have the general contract for the building. The foundations for walls and columns are composed of plain and reinforced concrete. In the main building and some of the one-story portions, the columns rest on Raymond concrete piles, of which 4,000 have been driven with an average length of twelve feet. On each group of piles rests a reinforced concrete cap on which bases for the building columns are placed.

The 6,500 tons of structural steel required for the superstructure were supplied and erected by the Dominion Bridge Company. Bethlehem H. columns, girders and beams were used almost exclusively throughout.

The most modern fireproof construction has been used throughout the entire building, all interior columns being encased in 4¾ inches of hollow terra cotta and beams in 2⅜ inches. The floors are composed of hollow terra cotta segmental arches with a span of 6 ft. 8 in., and are suitable for a live load of 288 lbs. on the second to seventh floors and 150 lbs. on the eighth floors. A stone concrete fill is poured over the arches, in which wooden sleepers are embedded, and the underflooring is nailed to these sleeepers, and over this the final maple flooring is laid at right angles. The National Fireproofing Company supplied all the fireproofing terra cotta, amounting to 11,000 tons.

The walls are built of Laprairie plastic brick, seven millions being used. All the lintels in the courts and on the street sides, together with the architectural ornaments and copings on the street sides were supplied by the Atlantic Terra Cotta Co., of Tottenville.

The main buildings, shaped like the letter "E," have two main courts, which serve to provide ample lighting facilities for the 500,000 sq. ft. (over twelve acres) of floor space from the interior as well as the exposed sides on the streets. These courts have sloping roofs of book tile with large skylights. The G.T.R. and C.P.R. railway tracks run into one court, which has large platforms for shipping and receiving purposes. Each track is provided with a 150-ton Canadian Fairbanks track scale.

There are four travelling electric cranes, one 50-ton, one 20-ton, one 20-ton with 5-ton auxiliary hoist, and one 10-ton, all made by the Case Crane Co. The 50-ton crane will be

*Note.—There is nothing more interesting in manufacturing than the making of a big factory. To produce a huge modern plant there must be extensive co-operation among many manufacturers. This article shows how widely the contracts for building a factory are distributed.

used for handling reels of armoured cable, the 20-ton for the lead covering department, the 20-ton with 5-ton auxiliary for the turbine room, and the 10-ton for impregnating tank room. The two 20-ton cranes are arranged so that they can pass material to the 50-ton, which will convey it over the railway tracks or vice versa.

Fire walls with automatic steel fire doors on both sides divide the building into various sections. Each section has a fire and smoke-proof stair tower with iron stairs, at both ends, thus providing ample and safe means of exit in case of fire on any floor. The fire doors for the whole building were supplied by the Architectural Bronze & Iron Works and the iron stairs by John Watson & Son, Limited. All windows throughout the building have steel frames with wire glass. Pivoted sections of these windows can be opened with operating chains equipped with fusible links, thus making them self-closing in case of fire. The 95,000 square feet of steel sash required for the factory was supplied by the Trussed Concrete Steel Company and the casement sash for the offices by Henry Hope & Son, Limited.

All drains and underground sprinkler mains are being installed by James Ballantyne. The sprinkler and fire hose systems above the first floor level are supplied by H. G. Vogel Company (Canada), Limited, and consist of 6,000 sprinkler heads and fire hose located at convenient points in the building. These systems are supplied with water from the city mains, steamer connections on the street and a 1,500 gallon Worthington Underwriter's Fire Pump which is connected to a 100,000 gallon concrete reservoir and the canal.

Five 6,000 and one 15,000 lb. freight elevators with a travel of 100 feet and 25 feet per minute respectively, will be used to handle the transfer of material for manufacturing, and two high-speed passenger elevators travelling at 350 feet per minute will be used to serve the general offices of the company, which are situated on the eighth floor of the building. They are being supplied by the Otis-Fensom Elevator Company. This floor has no columns, the roof being supported by steel trusses with large skylights. The absence of columns affords splendid facilities for the laying out of offices to suit the requirements.

A unique point in the design of the building is the storage space secured on the roof of one section by means of paving bricks. This roof is served by means of one of the 6,000 lb. freight elevators.

Large intake pipes from the canal supply the reservoir and the water used for condensing purposes. An automobile garage and a wagon court with platforms facing St. Patrick Street are so arranged that the material can be readily loaded for city delivery without having to cross the railroad tracks.

The building will be heated by a forced circulation hot water heating system. Exhaust steam from one of the main turbines will be passed through closed heaters. The water will be circulated by means of a 4,000 gallon Alberger single stage volute pump directly connected to an Alberger Curtis steam turbine. The vapors and condensate from the exhaust steam will be carried from the heaters by means of an Edwards air pump with a tail pump. This makes a very flexible system to suit the changes in the outside temperature, as the vacuum can be increased in warm weather, thereby creating a lower temperature of the exhaust steam and decreasing the amount of steam required by the turbine as the vacuum increases. In extreme cold weather the turbine can exhaust into the heater at atmospheric pressure and thus increase the quantity and temperature of the steam. When running two turbo generator units in parallel, one turbine can run condensing, while the other exhausts into the heating system and its load can be varied to suit the amount of steam required for heating purposes. The power plant equipment for this heating system is in duplicate, either one of the units being large enough to take care of the whole system. The enclosed heaters mentioned above were built by John McDougall Caledonian Iron Works Company, Ltd.

The water required for the house service system and for manufacturing purposes will be pumped from the 42-inch intake pipe mentioned above by means of Deane motor-driven, single-acting, helical-geared triplex pumps supplied by John McDougall Caledonian Iron Works Company, Ltd.

The Canadian Ingersoll Rand are supplying two steam-driven air compressors, which have a combined capacity of 1,200 cubic feet.

The power plant is of the most modern design; coal can be stored in large quantities and will be transferred to the storage bins over the front of the boiler by means of a Telpher car and clam shell bucket. Ash handling equipment takes the ashes directly from ash chutes under the boilers and delivers them into ash storage bins which in turn deliver them into railroad cars or carts for disposal. Ashes can also be handled by means of small cars on an industrial railway running into the basement of the boiler room. The Telpher car will raise the body of each of these cars off the truck, through a hatchway in the main boiler-room floor, and will carry them over to the ash storage bin. This method of ash handling will only be used when it is necessary to overhaul and repair the regular ash handling equipment.

A 225-foot chimney built by the Alphons Chimney Construction Company serves four B. & W. boilers nominally rated at 650 horse-power, but which will be forced to deliver 1,000 horse-power when necessary. These boilers are fitted with B. & W. chain grate stokers and superheaters. The exhaust steam and condensate from the heaters, turbines, condensers, and steam driven auxiliaries is brought to a Warren and Webster feed water heater, which is capable of raising 107,000 lbs. of water per hour to 210 degrees. From this heater the water is returned to the boilers by means of two Weir boiler feed pumps, each with a capacity of 6,000 Imperial gallons per hour. General Electric Curtis horizontal turbines form the motive power for the generators and are placed on structural steel stands directly over the Alberger centrifair condensers, thus insuring a high vacuum. Tunnels leading from the turbine and pump room are used to run the power and lighting circuits, the flow and return pipes of the forced hot water heating system, the house service water lines and the high pressure steam lines for manufacturing purposes.

The turbine room has been laid out for two 2,000 k.w., two 1,000 k.w., turbo generators, two 460 k.w. rotary converters, and two 75 k.w. turbo driven exciters, one 1,000k.w., one 2,000 k.w. turbo-generators, and two rotary converters will be installed now. The generators are 3 phase, 60 cycles, 440 volt star wound with neutral connection brought out to the switchboard. The exciters are 125 volts, and generator voltage will be controlled by Tirrill regulator.

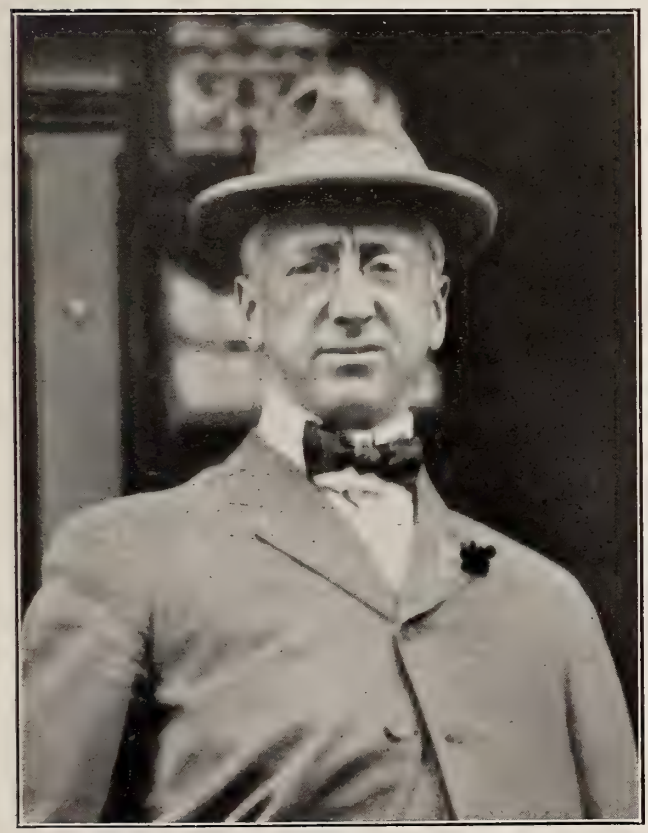
Air for the ventilation of the generators will be taken from a duct in the foundations of the generators and forced through the windings and air passages by fans integral with rotors. Screens will be provided in the penthouse of this duct to exclude dust, etc.

The horse-power of connected load will be approximately 550 H.P. Direct Current at 115 volts and 4,000 H.P. Alternating current at 440 volts. For the supply of the former, two 460 K.V.A. rotary converters, with necesssary transformers and starting switches, will be installed, the neutral being

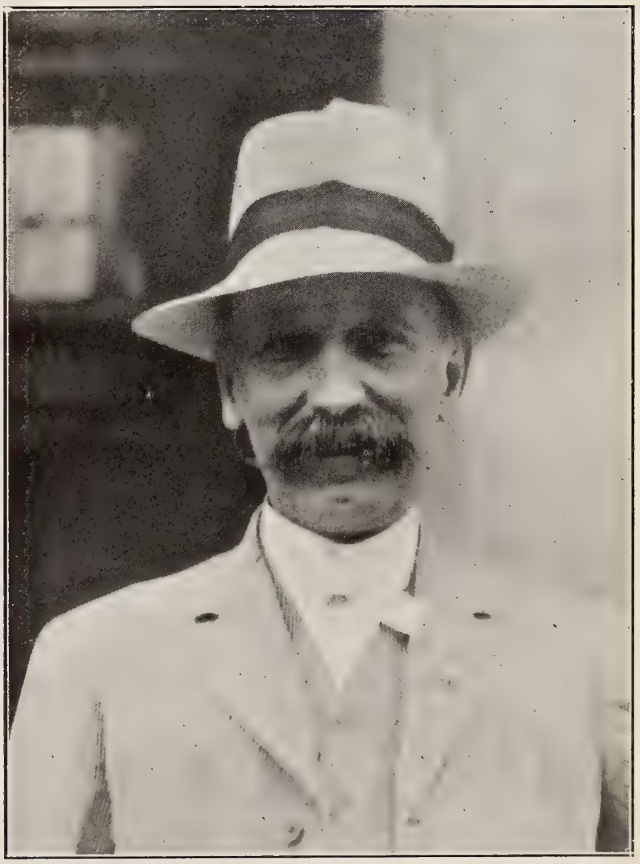
(Continued on page 1612.)



A cheerful group of Manufacturers who attended the Annual Convention in Montreal. Pick out your friends.



Mr. J. H. SHERRARD, the new First Vice-President.
Snapped at the Montreal Convention.



Lieut.-Col. W. M. GARSHORE, of London.
The New Second Vice-President.

ACCIDENT PREVENTION vs. COMPENSATION

By RILEY SCHENCK

The Opinion of an Experienced Safety Engineer on the Necessity of Accident Prevention.

"OF course we are interested in preventing accidents; we always have done everything that we knew how to do to prevent them, and have always tried to take good care of our own people; it gives us no pleasure to see any of our people hurt, neither do we like to have them lose their wages on account of an accident; but it looks to me as if someone wanted to force the manufacturers of Ontario out of business by compelling them to come under this excessive Compensation Act, 'willy-nilly,' as it were; and I tell you plainly that I do not see where we will get any benefit from employing safety engineers and doing accident prevention work in our individual factories. The way the Act has been explained to me, every one in our line of business has been grouped together in the same class and every one will have to pay the same rates no matter how much more one has done to prevent accidents than another. I may be wrong in this, but that is the way it looks to me."

The above is a fair sample of the talk the writer has heard many times these last few weeks in his calls upon the manufacturers to interest them in scientific accident prevention work, to put their plants more in harmony with the "Factories, Shops and Office Buildings Act for the Province of Ontario," as well as to help them get all the benefits possible under the "Workmen's Compensation Act" that has been passed and will go into effect on or before January 1st, 1915.

It is to try to answer the above objections, and others, that we are writing this paper. We desire to show the benefits that the individual manufacturer may secure from the assistance of a "Safety First" campaign, who by a careful study of factory conditions, and the quality and quantity of help, can install proper safeguards, remove danger points, furnish acceptable and suitable plans to secure the necessary co-operation of the workmen in safety habits for themselves and for others about them; and also to show the even greater benefit that can be gained by the various groups, as defined in the Act, getting together, forming trade organizations, and carrying on this same work as a group, standardizing the conditions of every plant under the group, and as a group having one committee to look after conditions for the whole group.

The Place of Safety Engineering.

Safety engineering as a profession is a new thing, so new in fact that it has not been taught in any of our schools or colleges until this year, when Sheffield Scientific School, of Yale University, incorporated special instruction in connection with the regular engineering courses that will lead to the degree, S.E.—Safety Engineer. Most of the men now in this line of work are graduates of the school of experience, men who through a natural adaptability, or inclination to prevent accidents, have studied the matter in connection with their regular positions as engineers, mechanical, electrical or constructing, as master mechanics, superintendents or foremen in shops.

Manufacturers Fear Rates.

There is much apprehension amongst the manufacturers as to the burden that the compensation rates will be to their business; it should be remembered that the final rates will depend absolutely upon themselves. The Ontario Act gives the individual employer a great incentive to lower his rates by the use of active accident prevention work, and to the groups as defined by the Act, a far greater incentive for concerted "Safety First" work, in that it provides in paragraph 101 that any group can get together and form a trade association. In fact, it recommends that such associations be formed, and promises that a part of such group, that seems to represent a fair proportion of the group, will be recognized by the Commission, its rules and standards adopted for the group. Any members of the group that will not come up to the standard will be penalized and compelled to pay a higher rate. Also such a class may select a safety engineer for the group, and the Commission will pay part or all of his salary out of the funds held for the group, insuring that every member of the group will pay his share for such expert service. Paragraph 102 recommends that a committee of not over five members be appointed to look after the interests of the group, and the Commission will deal with this committee for the whole group. As for the rates to be set as "basic rates," as this Act follows very closely the Washington law, and the chief auditor of that state is opening the work here, it is fair to assume that the "*modus operandi*" will be nearly the same. We have before us the official reports for the thirty months that the Act has been in operation, and note that the basic rate varies even in the same group; for instance, class 1, five different lines listed from 2 per cent. to 6½ per cent.; class 5, twenty-eight different listings, from 2 per cent. to 8 per cent. rates, etc.

How It Works.

The first collections were made for October, November and December, 1911, and the full rates were collected for all classes; the next year the total payrolls were divided into twelfths, and collections made at the basic rates on such fraction of the year's payroll as was needed to meet the requirements. In 1912 the full amount was collected in only one instance, class 24, and in 1913 in only class 42. In other classes it was very low. In 1912, in classes 22, 30, 40 and 41 only paid the basic rates on the one-twelfth of payroll, and in 1913 class 41 only paid on the one-half of one-twelfth.

This class 41 included printing, electrotyping, photo-engraving, lithographing and making jewelry, all listed at 1½ per cent., or $1.50 on each $100 of the payroll; there were 369 separate members and 2,108 workmen; the calls showed an average of 27c. on the $100 of payroll for the two years, and only 13c. on the $100 for the year 1913.

With intelligent co-operation of the members of the groups in scientific accident prevention, and the active co-operation for "Safety First" of the management and the employees in the individual plants, the chances for low rates are even better here than in Washington.

Workmen and Guards.

Another point that is generally brought up at first by the representative of the manufacturer, is that no matter what guards are supplied, the men will not use them. When the foreman's back is turned the man will remove the guard and throw it in the corner. There may be something in that; within the last few months we have seen many guards fished out of corners. Experience has taught us how to overcome that trouble to a great extent, but even the mere placing of guards upon dangerous machinery is only a very small part of a competent safety engineer's work. We claim about one-third of the reduction of accidents through the installing of safeguards; but if we did not install the safeguards, it might be impossible to secure the saving of the other two-thirds through co-operation and daily inspection.

Improper Guards.

Many times a workman will object to a guard because it is not properly designed to meet the conditions under which he has to work to make his average output. The safety engineer can usually design a guard that will not interfere with the operation of the machine, because he can combine his observation at other plants with the experience of the operator of the machine to the mutual advantage of both.

Sometimes the workman will object to the using of a guard on his machine for fear of ridicule from his fellows. This does sometimes happen, but the proper attitude of the foreman will overcome this fault nearly every time. Many times the objection is made by the workman from groundless fears, acquired in some way, that the guard will decrease his output, laboring under the double fear that he will lose money himself and that his boss will censure him for loss of output. It sometimes requires careful handling to overcome such objections. In one instance lately we recommended guards for a certain machine, after a guard had been purchased, and was lying close to the machine. The operator objected, and said that if the guard were put on the machine he would quit. As he had been on the same machine for many years without getting hurt, and knew the work very well, the boss was inclined to let him have his way, and not put the guard on after it had been purchased. We had a talk with the man, explaining that we had thought this the best possible guard for that machine, but we might be mistaken. We asked the man to let us put the guard on, and to give it a trial for three days for our personal benefit, adding that if he lost a single cent by the trial we would make it up to him, take the guard off, and not recommend it again. He accepted the offer and the guard was placed. After a few days we went to him and asked how he liked the guard. He admitted that he was getting used to it. Then we asked if we should take it off. He replied: "Oh, no; it's on, you might as well leave it there." Then we asked him how much he had lost from the interference of the guard, and he sheepishly said that he had lost nothing; in fact, after he found that it was impossible to get caught, that he had done more work than he had ever done before. Then he called the boss and recommended that the same guard be placed on every machine of the same style. This plan of personal appeal seldom fails, and after such an understanding we seldom have any trouble to have the guards used, as the men see that we are not trying to interfere with their output.

Men Willing to Co-Operate.

We have found from experience that the man is ready to co-operate when properly approached, and also that the proper attitude of the foreman is the most important item in having safeguards used; in fact, more depends upon the foreman than any other one cause. A foreman who is careless or negligent in safety matters, and who will not co-operate in safety work, should be dismissed.

Large and Small Groups.

Some manufacturers do not seem to understand the system of grouping, and seem to think that their chances would be better in a small class than in a large one, but such is not the case. Classes are arranged to cover like conditions, or hazards as similar as possible; and each class or group will be expected to carry the losses of the group, being assessed from year to year for sufficient sums to meet the claims of the class. If it is a small class, with few separate members, and there should be a series of fatalities happen, to one or more of them, it would require full assessments to meet the losses, but with larger classes the same series of fatalities would be so divided that it would hardly be felt. It is this theory of spreading the risk that allows the accident insurance companies to pay their claims and to make dividends on the rates they charge for protection, for, while they may have a severe loss in one section of the country, there are many policies in force in other sections of the country that are not affected by the loss. Another instance from the Washington report will make this clearer. In class 46, powder works, there are only six firms and 196 workmen; the basic rate was set at $10.00 on each $100 of the payroll, which should be sufficient to meet the claims. In November, 1911, there was an accident in one of the works where eight of the employees, all under twenty-one, were killed, and in January, 1913, another was killed. To meet the pensions of the dependents until each would have reached his twenty-first year would require the investment of $11,659.35, which would have been hard upon the small class at the best. So far the largest firm have refused to pay their assessments, and the State is suing them for the payment; the result is that warrants were issued in each case, to the pensioners, but marked "Not paid because of lack of funds in class 46."

In Ontario, with the provisions before mentioned for empowering the progressive members to compel all other members to keep their plants up to a standard, it would be far better to be in a large class; for besides distributing the risk, it would reduce the expenses to the individual for safety engineer and inspection work.



SIR ADAM BECK

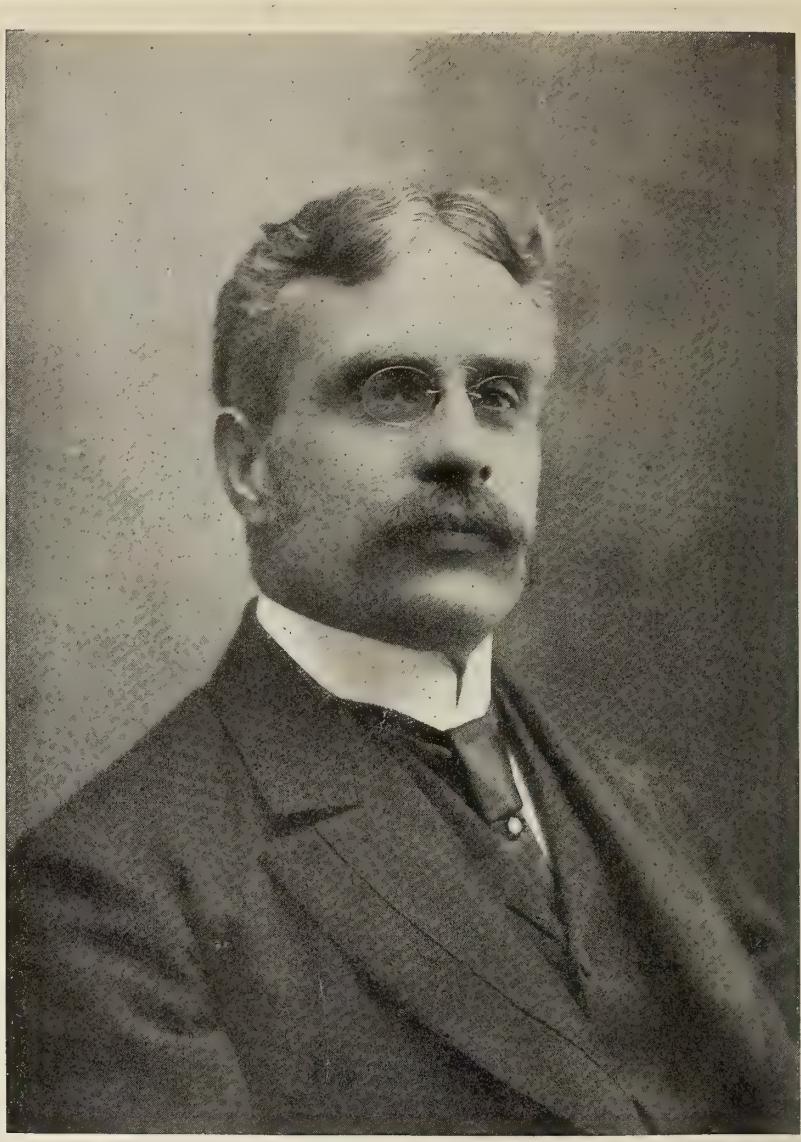
(Honored on the King's Birthday).

Sir Adam Beck has been chiefly concerned in the campaign for hydro-electric power, which he began on the assumption of office of Sir James Whitney as premier of Ontario, in 1905. As a result of his efforts power is distributed under public control from Niagara Falls to many municipalities in Western Ontario at the cost of production and transmission. The cheapness of electric energy brought about by Sir Adam's leadership seconded and endorsed by the Ontario Government and influential people of both political parties in this province, it is said, has had a great influence in accelerating the growth of many towns and cities as manufacturing centres. Sir Adam Beck is also noted for his interest in horse breeding. He was born in Baden, Ontario, June 20, 1857, and in 1890 was married to Lilian, daughter of the late C. J. Ottaway. He was mayor of London, Ont., in 1902, 1903 and 1904. He is a manufacturer with factories in London and Montreal.

SIR ROBERT BORDEN.

(Honored on the King's Birthday.)

Sir Robert Laird Borden became premier of Canada in September, 1911, after leading the Conservative opposition in the commons at Ottawa for over ten years. He was born at Grand Pre, N.S., June 26, 1854, and is the oldest surviving son of the late Andrew Borden. His family were among the first settlers in Nova Scotia. He was educated at Acacia Villa Academy, Horton, and began the study of law in 1874. He was called to the bar in 1878, and in 1889 he was married to Laura, youngest daughter of the late T. H. Bond of Halifax. He worked up an extensive law practice in the supreme court of his native province and in the supreme court of Canada. In 1896 he was elected to the commons for Halifax, which he represented till his defeat in the general election of 1904. He was then found a seat in Carleton County, Ont. He won the Halifax city and county seat again in 1908 and in 1911. Sir Robert has gained repute as a debater in the Commons. He is a golf enthusiast, and played a series of matches with William H. Taft, when Mr. Taft was president of the United States, but fell before the superior skill of the American. It was after this series that an Ottawa man telegraphed to Mr. Taft that Mr. Borden might not succeed against him at golf, but he would be the next premier of Canada, prophetic words which were recalled after the celebrated campaign against reciprocity.



SIR ROBERT BORDEN,
Premier of Canada.

ANNUAL MEETING QUEBEC BRANCH.

The Quebec Branch of the Association held its annual meeting at the Chateau Frontenac, Quebec, on Thursday, May 28th, under the presidency of Mr. E. T. Nesbitt.

The meeting was preceded by a lunch at which the guests were Messrs. J. H. Sherrard, Second Vice-President of the Association, S. J. B. Rolland, member of the Executive Council, and H. T. Meldrum, Assistant Secretary.

The visit of the Dominion's Royal Commission was discussed by the members with much interest, and the leading manufacturers of the city will be requested to give evidence as representing the Branch, before the Commission.

A brief address by Mr. J. H. Sherrard on the purchase of Made-in-Canada goods was enthusiastically received.

The officers for the coming year were elected as follows:—

Chairman—J. H. Gignac, J. H. Gignac, Limited.

Vice-Chairman—J. J. Timmons, M. Timmons & Son.

Executive Committee—Herbert Gale, Gale Bros.; Paul Hebert, St. Lawrence Glove Works; L. A. Moisan, Victor Manufacturing Co.

Representatives to Executive Council—E. T. Nesbitt; Jos. Picard, The Rock City Tobacco Co., Ltd.

The meeting then adjourned.

There will be two automobile factories at Coldbrook, three miles from St. John, N.B., on the line of the Intercolonial Railway. The Ford Motor Car Company already has a factory there, which is to be enlarged. A new company, to be known as the Dominion Motor Car Company, Limited, with $400,000 capital, is seeking a charter, and has leased a site near the Ford Company's factory, and announces that it will have its plant erected and in operation by midsummer. P. A. Rockefeller and other New York capitalists are interested in this company. The company has also been looking into the question of establishing brick and tile works at Coldbrook, where a valuable bed of clay has been located. The Canada Nail & Wire Company, Limited, will erect a factory at Coldbrook this year. The St. John Desk Company, which has a small factory in St. John, proposes to erect a larger one at Coldbrook. There is also talk of the organization of a company to build a shoe factory. The Coldbrook Realty & Development Company will go on with its work of developing a garden suburb, and this, with the industrial development, will make Coldbrook the scene of great activity during the present year. The street railway company is prepared to extend its line to Coldbrook, and it is already extended one mile from the city in that direction, and the additional two miles would be over a perfectly level stretch of land along the highway. The building up of so important an industrial suburb at Coldbrook will be of great benefit to St. John.

With the financing recently carried out by the Canada Machinery Corporation, Limited, whereby $150,000 additional working capital was provided, certain changes in the management have taken place through the retirement of Mr. T. F. Kenny as General Manager, and in future Mr. T. H. Watson, the newly elected President, will assume these duties and take an active part in directing the Company's affairs.

AUDITOR'S REPORT

BALANCE SHEET, 30TH APRIL, 1914.

31 July, 1913.		30th April, 1914.	
	LIABILITIES.		
$16,769.16	Fees paid in advance and unearned	$21,734 11	
3,314.83	Accounts payable	3,673 15	
48.68	Toronto branch — special suspense	379 03	
$20,132.67			$25,786 29
1,450.00	Reserve for depreciation, furniture and fittings	$1,650 00	
36,969.69	Balance surplus assets	43,180 69	
			44,830 69
$58,552.36			$70,616 98
	ASSETS.		
$10,426.67	Cash on Hand and in Bank.	$20,392 80	
31,013.56	Investment—as per Schedule "C"	31,513 56	
479.26	Interest accrued on above	713 33	
$41,919.49			52,619 69
$8,679.19	Accounts Receivable—Advertising	$8,800 58	
	Accounts Receivable — Trade Index	51 50	
499.25	Accounts Receivable — Legal Dept.	703 70	
4.00	Accounts Receivable — Commercial Reports	4 00	
324.97	Fees Accrued and Due	241 50	
$9,507.41		$9,801 28	
1,000.00	Less Reserve for Bad Debts	1,000 00	
$8,507.41			$8,801 28
$500.00	Advance *re* Test Case Extra Provincial Corporations	$2,000 00	
1,511.24	Trade Index, 1913	.....	
543.40	Expense Inventory	113 62	
5,570.82	Furniture and fittings	7,082 39	
			9,196 01
$58,552.36			$70,616 98

Contingent Liability.

Expenses *re* Extra Provincial Corporations Test Case.

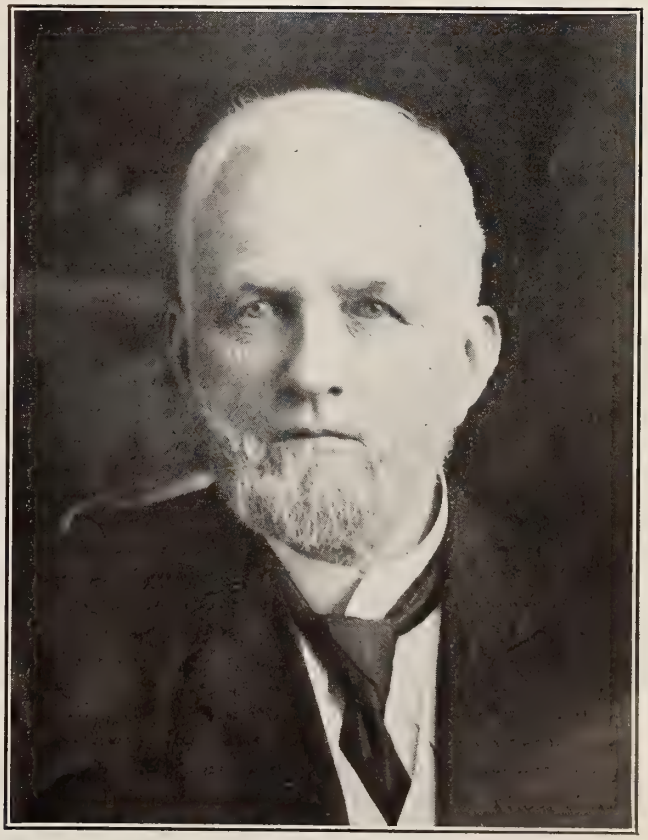
Audited and found correct,

WILTON C. EDDIS & SONS,
Chartered Accountants.

REVENUE ACCOUNT.

For 9 months—ending 30th April, 1914.

1914.			
April 30th.			
To Expenses as per Schedule "A"	$43,280 84		
" Bad Debts	258 66		
" Depreciation of Furniture	200 00		
" Extra Provincial Corporation Test Case	1,075 29		
" Workmen's Compensation Act	1,436 43		
By Membership Fees			$42,176 57
" Interest			1,507 38
" "Industrial Canada" as per Schedule "B"			5,288 58
" Trade Index, 1913			3,489 69
To Profit for nine months—Carried down	6,211 00		
	$52,462 22		$52,462 22
1913.			
July 31st.			
By Balance			$36,969 69
1914.			
April 30th.			
By Profit for nine months			6,211 00
April 30th.			
By Balance			$43,180 69



MR. GEORGE BOOTH
Booth-Coulter Copper & Brass Co., Limited, Toronto, Ontario.
Treasurer, C.M.A.

SCHEDULE "A."

EXPENSE ACCOUNT

For 9 months—ending 30th April, 1914.

Annual Meeting, 1913		$2,057 23
Branches:—		
British Columbia	$346 18	
Hamilton	594 46	
Manitoba	40 55	
Montreal	3,568 56	
Nova Scotia	214 50	
Quebec	154 80	
Toronto	1,360 61	
		6,279 66
Certificates		239 93
Departments:—		
Insurance		1,499 94
Legal		3,983 29
Tariff		4,916 53
Transportation		7,482 54
Exchange		85 12
Postage		464 66
Printing and Stationery		782 14
Presentations		200 00
Rent and Light		849 24
Salaries		7,659 22
Sections		56 40
Telegrams and Telephones		169 75
Translations		231 28
Travelling		951 39
Sundries and Office Alterations		1,966 72
Winnipeg Office		2,692 17
Montreal Office		5 30
Labor Committee		708 33
		$43,280 84

SCHEDULE "B."

INDUSTRIAL CANADA.

Statement showing Receipts and Expenditure for 9 months ending 30th April, 1914.

EXPENDITURE.

Electros	$916 82
Special Literary Matter	237 00
Postage and Distribution	1,118 66
Printing and Stationery	8,642 70
Rent and Light	825 03
Salaries	4,440 28
Telegraph and Telephone	59 38
Travelling	240 02
"Industrial Canada" Prizes	470 00
Sundries	66 35
	$17,016 24
Profit for nine months	5,288 58
	$22,304 82

RECEIPTS.

Advertising—Display	$20,759 88
Advertising—Buyers' Guide	1,448 46
Sale of Copies	96 48
	$22,304 82

SCHEDULE "C."

Investments.

	Par Value.	Cost.	Rate of Interest.	Due Date.
City of Toronto Bonds	$4,866 67	$4,193 12	3½%	1 July, 1944
City of Hamilton Bonds	4,000 00	3,932 00	4%	1 Sept., 1920
City of London Bonds	2,000 00	2,017 80	4½%	30 June, 1915
City of Stratford Bonds	10,000 00	10,400 00	4½%	1 Jan., 1941
Riordon Pulp and Paper	5,000 00	4,950 00	6%	
City of Toronto Bonds	6,326 66	5,520 64	4%	1 July, 1948
Loan to Regina Relief Fund against Saskatoon Debenture	500 00	500 00	4½%	
		$31,513 56		

REPORT OF THE EXECUTIVE COMMITTEE

YOUR Executive Committee, who have pleasure in presenting herewith their first annual report, were called into being through the changes effected in the By-laws last Fall. It was felt at that time that the steadily increasing scope and importance of the business affairs of the Association made it unwise that their control should continue to be divided among three or four committees, but that on the contrary they should be centralized and placed under the supervision of one committee who should act more or less as the representative of the Executive Council when the latter was not in session.

In the carrying out of this design the Committees on Finance, "Industrial Canada" and Commercial Intelligence, were all eliminated, and their duties, together with certain duties formerly assumed by the reception and membership committee, were transferred to the Committee now reporting. This explanation will at once account for the absence of reports that have been familiar features at former conventions, as well as the number and variety of subjects embraced herein.

Your Committee assumed office following election by the Executive Council in November. Their report, therefore, covers a period of six months only.

Finances.

One of their first cares was to obtain from every Department at Head Office, from every Branch, and from every Section an estimate of the amount of money required in each case to carry on the work likely to arise before the end of the fiscal year. These, when received, were added to the liabilities already incurred, and a forecast prepared of the financial requirements under every heading. At the same time an estimate was made of the available revenue from fees, from publications, and from interest on investments. Exclusive of the Trade Index, which being an occasional publication could not properly be taken into account in authorizing additions to the Association's fixed charges, your Committee allowed themselves to work upon a maximum revenue of $49,433 out of which to meet all current expenditures for the nine months. The estimated disbursements,

NOTE.—*This Report was adopted.*

after making provision for salary increases, amounted to $47,371, clearly showing the need for a firm control over expenses if a deficit were to be avoided.

Throughout the year your Committee have kept closely in touch with the situation by causing monthly statements to be prepared showing actual receipts and disbursements, revenue earned and liabilities incurred, with comparisons for the corresponding periods of the previous year. In March a notice was sent to every Department and every Branch, urging that expenditures be kept down to the lowest point consistent with efficiency.

In some respects the year was an unusual one, calling as it did for expenditures of an extraordinary character, reference to which will be made later. Under the circumstances, therefore, it is gratifying to be able to report that not only has the entire cost of the year's work been paid out of current revenue, but that the margin to spare, added to incidental earnings, has enabled the Association to add over $6,000 to its surplus.

Extraordinary Expenses of the Year.

Building alterations, necessitated by a decision to consolidate into one suite offices that had previously been scattered over three different floors, involved an expenditure of $1,631, following which new furnishings had to be purchased at a cost of $1,288. Needless to say, these are items of expense which should not have to be repeated for some years to come. While bulking fairly large, they are more than justified by the improvements they have afforded in the facilities for work. Compensation legislation in Ontario, directly affecting over fifty per cent. of our members, and indirectly affecting all the remainder, led to another large expenditure, $1,436, mainly for printing and postage. Now that the bill has become law, expenses under this head should rapidly diminish. A third item of extraordinary expense was incurred in connection with the test cases that are being brought under the Extra-Provincial Corporation Licensing System. For 1914-15 the disbursements under this head will probably show an increase, but they should be terminated within the next few months, as the cases are set down for an early hearing before the Privy Council.

Insurance Department.

With all the negotiations pertaining to the liquidation of the Central Canada Company and the reorganization of the Insurance Department your Committee kept closely in touch, and no important step was taken without their full knowledge and concurrence. When Willis, Faber & Company took charge it was expected that they would assume the rent of that portion of the office premises they were to occupy, amounting to $2,000 a year, and thus relieve the Association of that expense. In view of the fact, however, that the liquidation of the Company may give rise to a small shortage, the Association has continued to pay the rent pending a final adjustment. This is in accordance with the arrangement made with Willis, Faber & Company, who naturally had to be protected against a deficit, but any rent paid on their account since January 1st is almost certain to be returned, although in the meantime it is not taken into account in our statement of assets.

Industrial Canada.

Despite a year characterized by general dullness of trade the earnings from INDUSTRIAL CANADA have kept up remarkably well. For the nine months ending April last the gross revenue from advertising was $22,304, compared with $22,620 for the corresponding period of 1912-13. For the regular monthly issue the cost of publication shows a slight tendency to increase, due to higher salaries, a more liberal use of illustrations, a small growth in circulation and a small increase in the number of pages. Considering the fact that



The great floating dry-dock, "Duke of Connaught," was one of the most interesting sights of Montreal during the Canadian Manufacturers' Annual Convention. It can accommodate the largest vessels and is a distinct acquisition to the shipping interests of Canada.

the paper receives no credit on our books for the subscriptions of the 3,000 members of the Association to whom it is regularly sent, its showing is really excellent. The nominal subscription price of the paper was recently raised from $1 to $2 per year, as it was found that at the former figure the Association was losing money.

Canadian Trade Index.

The Canadian Trade Index has again proved itself to be a profitable venture, the 1914-15 edition, which made its appearance last Fall, yielding a net surplus to April 30th of $3,489. The advertising carried, $11,915, was somewhat ahead of the previous edition, while the receipts from the sale of copies have been considerably higher. With the exception of a small reserve stock from which to fill casual orders, the distribution has now been completed. Members have received



MR. J. H. SHERRARD
Alaska Feather & Down Co., Limited, Montreal, Que.
Elected Vice-President, C.M.A.

it free, and it has also been supplied gratis to government and municipal offices, to the purchasing agents of large corporations, to architects, contractors, foreign buyers, etc., whose use of it was thought likely to prove beneficial to Canadian manufacturing interests. Others enquiring for it have been regularly asked $3.00 a copy, a price which most people seem quite willing to pay.

When it is decided to publish another edition, perhaps in 1916, the clerical cost should be greatly reduced as a result of a system now installed by which all the necessary information is fully tabulated on cards and always kept up to date.

Salaries.

Salary increases voted since August 1st last have brought the total pay roll list up to $46,500. Last year it stood at $40,552. Of the difference, $4,240 is made up of increases and $1,708 represents the salaries paid to clerks and officers who have been added to the staff.

Exclusive of the Insurance Department there are now, all told, on the pay roll of the Association 32 persons, 25 of whom give their entire time to our work. It is a pleasure for your Committee to record their opinion that the Association is splendidly officered throughout, by men and women who are able, conscientious and obliging, who have proved themselves worthy of our confidence and who have earned our appreciation.

Investments.

In view of the fact that the balance at the credit of the Association on April 30th was over $19,000 and that the period of largest annual collections will follow in August and September, your Committee have instructed the Secretary to report upon a suitable medium for a further investment of $10,000. When this is made it will bring the total of the investment account up to $41,513.

Graphic Arts Section.

Negotiations have been in progress for some months past with members of the Association in the printing, book-binding, engraving and lithographing trades, looking to the organization of what promises to be the most important section the Association has ever had. By reason of the financial responsibilities and questions of general policy involved, your Committee have given the matter most careful study.

Briefly, what the printers propose to do is to conduct an educational campaign among all people in the trade in Canada for the purpose of emphasizing the need for better means of keeping track of costs, and to assist members with the installation of proper costing systems. To this end a general secretary is to be employed, whose chief duty it will be to organize the trade thoroughly, and under whose direction two cost experts will be employed. To pay the salaries of these officers, and to defray travelling and office expenses, it is estimated that between $12,000 and $13,000 a year will be required.

To meet this expenditure the Section looks to three sources of revenue—an assessment on the mechanical pay roll of each member, fees earned by the cost experts from firms individually served, and a grant from the Association.

In view of the extensive programme of work to which our Association is already committed, your Committee maintained from the outset that such fees as were paid by printers then on the membership roll should be regarded as immune from assessment for section purposes. They agreed, however, to turn over for the use of the Section, for a period of three years, all the fees paid by such new members as might be secured from the printing trade, after first deducting $5 per member to cover carrying charges.

An examination of the membership on April 1st showed 111 firms already enrolled who would be eligible for membership in this Section. Those behind the movement estimated that in one year this number could be increased to 225, and in three years to 440, the new members paying an average fee of $15. Were these expectations realized, the Section would thus receive from the Association at the end of the first year $1,140 (225—111=114 x $10), and at the end of the third year $3,290, (440—111=329 x $10). This arrangement would give the printers the advantage of the Association's prestige in hastening and perfecting the work of organization; meantime it would cost the Association nothing, while at the end of three years it would leave us with all the revenue from the fees of new members clear.

To protect the Association against any deficit that might occur through the abandonment of the Section before the expiration of the three-year period, your Committee have insisted on guarantees from responsible members of the Section aggregating $5,000. Furthermore, they have stipulated that the Committee of the Section shall report frequently and fully to the General Secretary on all matters of policy and administration, in order that the conduct of the Section's

affairs may be made to harmonize with the general policies of the Association.

The work of organization is now being proceeded with. Since the first of April about twenty-five new members have been enrolled, and a large number of others are in immediate prospect. Some minor details of business have still to be settled as between the Section and the Association, but your Committee will endeavor to see that in all points the latter is carefully safeguarded.

Editorial Policy for "Industrial Canada."

Two months ago your Committee authorized the Secretary to adopt an aggressive editorial policy for INDUSTRIAL CANADA, leaving him free to translate that authority as his judgment might direct. Heretofore there has been a tendency to avoid controversial subjects in the editorial columns of our paper. Under certain circumstances this might still be desirable, but on the other hand the silence of INDUSTRIAL CANADA on controversial questions of vital interest to manufacturers has sometimes had a weakening effect. This, your Committee felt, should be remedied, and the Secretary and the Editor have accordingly been encouraged to criticize freely, even unsparingly, where they believe the facts warrant it, and to commend with equal frankness where commendation has been earned.

The increasing attention that is now being paid throughout Canada to accident prevention has led your Committee to give instructions for the inauguration of a Safety First Department in INDUSTRIAL CANADA, where safety and prevention devices, first aid appliances and similar equipment of the latest and most approved type may be featured and described. It is hoped that this Department can eventually be made one of real interest and value to all our members.

Safety First Signs.

Supplementing the above it is planned to issue, for distribution among Canadian factories, a series of Safety First Signs in a variety of wordings. These will either be lithographed on tin or galvanized iron, or enamelled or sheet steel, to ensure durability. Each one will bear the red disk which has become the conventional emblem of the Safety First movement, and the wordings will be chosen with a view to general use in all classes of industrial establishments. A prospectus with full details will be sent to members at an early date, the intention being to invite orders in advance for signs to be supplied at cost, and to limit the issue accordingly.

Canadian Council of Agriculture.

In November last the Canadian Council of Agriculture wrote the Association, requesting a public conference, to take place in Toronto between the 10th and 15th of December. This organization is the central body through which the Grain Growers of Manitoba ond Saskatchewan, the United Farmers of Alberta and the Dominion Grange of Ontario co-operate to advance their common interests. The shortness of the notice served made it impossible to reach a definite understanding either as to the subjects to be discussed or the advisability of admitting the press. It was also found practically impossible to secure the attendance of representative members of the Association at a time when so many were busy with stock-taking or with Christmas orders. The Council were accordingly notified that the Association would be pleased to take part in a conference if a later date could be selected that would be mutually convenient. Recently the correspondence has been renewed, looking to a meeting in the West some time before the harvest.

Meanwhile it is a pleasure for your Committee to be able to report the acceptance, by Mr. C. A. Dunning, Manager of the Saskatchewan Co-Operative Elevator Co., Limited, of an invitation to address this convention on the subject of "Western Agricultural Problems."

British Columbia Manufacturers' Association.

Early last autumn some of the manufacturers of British Columbia formed themselves into an organization bearing the above name, recruiting their membership from members of the C.M.A and from others. From literature thus far received it appears that their principal object is to further by every legitimate means the sale of goods manufactured in British Columbia, and so to foster the growth of industries already in operation in the Province, and to encourage the establishment of new ones. The fairly rapid growth which this organization has experienced has reacted to some extent upon our own membership in British Columbia, indicating the desirability of having the situation looked carefully into on the ground by our General Secretary. Instructions to this effect have been given, and the visit will be made within the next few weeks.



LT.-COL. W. M. GARTSHORE
McClary Manufacturing Company, London, Ontario.
2nd. Vice-President, C.M.A.

Made-in-Canada Policy.

The encouragement of home industry is, of course, one of the principles which this Association has always advocated, but far from encouraging a narrow interpretation of that term, it has endeavored to incline Canadians of every class and in every locality to give it the broadest possible interpretation. Eastern Canada, for instance, needs British Columbia fish and British Columbia timber, and British Columbia wants the market which Eastern Canada affords for these articles; conversely, British Columbia needs various manufactured products from Eastern Canada which the latter is equally anxious to sell her. The danger of provincializing the home industry cry is that people are inclined to forget the preference they owe to the products of another province over imported products.

Since the present depression began the influence of the Association has been used repeatedly to keep government and municipal business in Canadian channels. A letter to which

wide circulation was given recommended that every contract to which any Government Department, any municipality, any corporation, any partnership or any individual in Canada was a party should contain a clause specifying the use of Canadian material, providing same could be had at reasonable prices, and in the quality and quantity and at the times required for the proper carrying on of the work, failing which imported material might be used after permission thereto in writing had first been obtained. The reasonableness of this appeal has caused it to be received with general favor, though its practical observance can only be expected to follow as the result of persistent agitation.

Homestead Regulations.

At the instance of the Manitoba Branch your Committee placed the Association on record with the Minister of the Interior as favoring the amendment of the Homestead and Pre-emption Regulations in such a way as to afford practical encouragement to mixed farming in the West, suggesting that this should take the form of allowing the homesteader the privilege of proving his rights and securing his patent by stock raising as well as by cultivation. Your Committee feel that the great extent to which the West has been given over to the production of wheat has brought about a condition that is in many respects far from wholesome. While the Homestead regulations cannot, of course, be held wholly responsible for this development, they have at least encouraged the settler to concentrate upon cultivation at the expense of stock raising. It would now appear wise on the part of the Government to offer encouragement for a time to the latter type of agricultural effort, not only by making it possible for the settler to qualify for his patent in that manner, but by making it an inducement for him to do so by shortening the time and remitting some of the duties.

Farms that are given over to the production of wheat are usually unoccupied for certain months of the year; live stock on the farm would guarantee the occupancy of that farm for the entire twelve months.

The cash return from wheat raising comes only once a year, after harvest. This condition has brought about a system of credit that is not only often embarrassing to other commercial interests, but that saddles the settler with high carrying charges. The return from stock raising would be more or less continuous throughout the year and would provide the settler, therefore, with ready money.

An increase in the production of meat, poultry, eggs and dairy produce would help materially in reducing the present high cost of living, while the prevalence of unemployment in the larger centres of Western population in the winter months could be largely mitigated by the necessary activities of farms given over to stock raising.

It is understood that the matter is under favorable consideration.

Undesirable Immigration.

In March last the Association was asked to endorse a resolution of the Ontario Associated Boards of Trade, asking that further precautions be taken by the Government to protect Canada against the admission of immigrants who were physically or morally unfit, or who were incapable of earning a livelihood.

Your Committee were unaware of any evidence justifying the statement of the organization above mentioned that large numbers of undesirable and unsuitable immigrants were being admitted under the present regulations, but they did not hesitate to advise the Minister of the Interior that the Association would welcome any precautions he might see fit to adopt that would serve the purpose of excluding those who were likely to become charges upon the community, or whose admission would tend to lower the moral and physical standard of our population.

Proposed Dominion House, London.

On different occasions during the past year the Association has been asked to express approval of Earl Grey's proposal to secure the Aldwych site in London as headquarters in that city for all the overseas Dominions. In so far as the proposal in question seemed likely to provide the necessary facilities for a permanent display of Canadian products in London, your Committee felt inclined to give it support, but they recognized that many other points had necessarily to be taken into consideration by the Federal Government before becoming a party to such a scheme, points upon which the Association was not qualified to express any opinion. Your Committee accordingly decided not to commit the Association in any way, and to offer no opinion until invited to do so by the Government.

Trade Commissioner Service.

The depressed condition of the lumber industry in British Columbia has given rise to an agitation in that Province for more practical assistance from the Department of Trade and Commerce in opening up export markets. The proposal first took the form of a request for the appointment of Special Trade Commissioners, who would devote themselves exclusively to the interests of this one industry. A petition to the Minister of Trade and Commerce, now in circulation, prays—

" That a Chief Trade Commissioner be promptly appointed and endowed with power to instruct all the Trade Commissioners of Canada in the British Overseas Dominions, South America and the Oriental Countries, to act not only as reporters but as active agents to obtain business for the exporters of all goods of Canadian growth or manufacture, and that the salaries of the Chief and other Trade Commissioners be regulated according to the results obtained, and that if necessary the Dominion Government assist in arranging financial aid to exporters, always providing satisfactory security is given."

The fact that of all the industries in Canada lumbering is practically the only one that is neither protected nor subsidized would appear to give weight to the argument that at this critical stage it is entitled to assistance of some kind. Under no circumstances, however, should it be permissible for Government Commissioners to act as salesmen. Not only would service of this kind be inconsistent with the dignity of the office, but inferentially it would make the Government responsible first to the foreign buyer for the quantity and quality of the material supplied and for deliveries, and second to the Canadian exporter for payments.

Pending the receipt of a report which the British Columbia Branch of the Association has beeen asked for, your Committee have made no representations to the Government. They regret their inability to authorize the signature of the Association to the petition referred to, though they do not hesitate to record their opinion that the situation is one which should receive most careful attention at he hands of the Government in an effort to devise some practicable plan of affording relief.

Dominions Royal Commission.

In August next the Dominions Royal Commission will begin a tour of Canada for the purpose of securing evidence on questions of Inter-Imperial Trade..

In an official circular sent out by the Department of

Trade and Commerce the purposes of the Commission are described in the following words:—

"Enquiring into and reporting upon the natural resources of the Dominions of the Empire, the development of such resources, the facilities which exist or may be created for the production, manufacture and distribution of articles of commerce in the Dominions; the requirements of each such Dominion and of the United Kingdom in the matter of food and raw materials and the available sources of the same; the trade of each Dominion with the others, with the United Kingdom and with the rest of the world; the effect upon the mutual trade of the several parts of the Empire of the laws now in force, other than fiscal laws, and how such trade may be improved and extended."

Our association has been officially invited to offer evidence or opinions on subjects pertinent to the enquiry, the following main headings having been suggested as a basis for our consideration in the interval:—

I. Communications:
   (*a*) Steamship; (*b*) Post and Telegraph; (*c*) Harbors; (*d*) Freights and Bills of Lading.
II. Railways and Railway Finance:
   (*a*) Systems open for traffic; (*b*) Proposed Extensions; (*c*) Capital and Debt.
III. Natural Resources and Their Development:
   (*a*) Agricultural; (*b*) Mineral; (*c*) Forests; (*d*) Irrigation and Water Power; (*e*) Fisheries.
IV. Trade:
   (*a*) Improvement of Statistical Methods; (*b*) Exhibitions; (*c*) British Empire Trade Mark; (*d*) Misdescription and Misrepresentation; (*e*) Trade Commissioner Service.
V. Legislation:
   (*a*) Double Income Tax and Death Duties: (*b*) Patents; (*c*) Codification and Consolidation of the Commercial Laws of the Empire.
VI. Empire Development and Organization.
VII. Migration.

With the co-operation of the Standing Committees and Branches of the Association, your Committee will endeavor to see that evidence is offered which will prove helpful to the Commission and at the same time reflect credit upon our organization.

Annual Meeting Arrangements.

The arrangements for this Convention have all been carried out under the supervision of your Committee, who take this opportunity of recording their appreciation of the splendid assistance given by the Committee of the Montreal Branch.

All of which is respectfully submitted,

C. B. GORDON, *Chairman.* G. M. MURRAY, *Secretary.*

NOTE.—*This Report was adopted.*

REPORT OF THE GENERAL SECRETARY

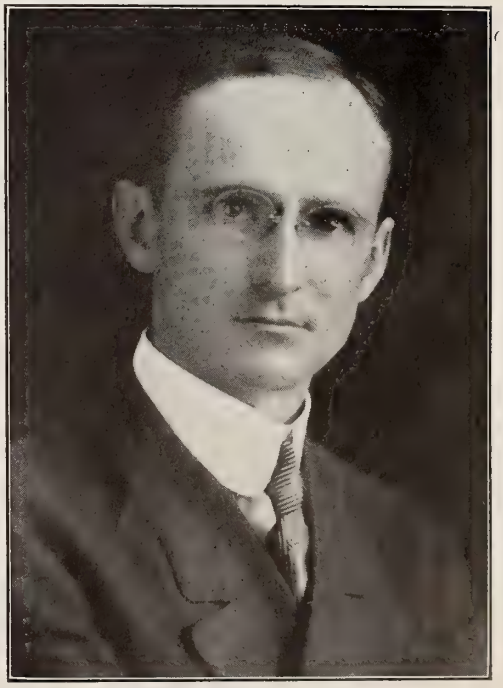
WITH our work so largely departmentalized, and placed under the direction of committees that report very fully to you, the need of a report from your Secretary is year by year becoming less apparent. To some extent it will always serve the purpose of giving you an idea of the odds and ends of business that must be done, but that are not the concern of any committee or of any department in particular. Such matters unfortunately are seldom of sufficient importance or interest to justify their discussion, or even their mention, at a busy time like this. It is just possible, however, that some rambling comments on the general workings of the Association may prove acceptable as coming from your chief executive officer, and in the hope that such may be the case, I have prepared a brief statement which I offer herewith for your consideration.

The Past Year.

The lapse of but nine months since our last Annual Meeting would point to the probability of shorter reports and lighter business than usual, but indications in this respect are deceptive. Not only have we had a very busy year, but we have had to deal with new problems of great difficulty, that called for careful study and sometimes delicate handling. From an administrative standpoint it has been a trying period, and to your staff it is a matter of satisfaction and relief that the anxious moments are passed, with the results practically all on the right side.

In our own small way we have felt the pressure of those conditions that helped to make business bad for all. Our commitments in the way of fixed charges made it necessary for us to provide ourselves with a revenue of approximately $50,000, nearly all of which had to be collected from people upon whom our only claim was a moral claim. Owing to the general dullness of trade, we anticipated great difficulty in collecting so large an amount from people whose every incentive was towards retrenchment, but such was the spirit of our organization, such the loyalty of its members, that not only were we able to realize the required amount, but we were also able to lay by a little for future needs.

The advertising patronage accorded to INDUSTRIAL CANADA throughout the year has been equally encouraging. In this venture we were prepared for a considerable shrinkage of earnings, but to our surprise and satisfaction, we found we



MR. G. M. MURRAY
General Secretary, C.M.A.

were able to hold our business almost up to the level of the previous year. Payments on this and on Trade Index advertising have been well met. The latter have now been practically all cleaned up, while INDUSTRIAL CANADA'S accounts receivable are no larger than under normal business conditions.

Insurance Matters.

The reorganization of the Insurance Department was attended by problems of a trying character that will be fully explained for you in the report of the Insurance Committee. Deprived on short notice of the services of our manager, on whom alone we had had to depend for advice on the technicalities of the business, we suddenly found ourselves confronted with the task of continuing, for a time at least, a financial enterprise that had been launched under the wing of the Association, of directing a business we did not fully understand, and of liquidating it with speed and safety in an effort to avert losses and litigation that might easily have proved costly. I do not wish to be understood to imply that our Association was financially responsible for the Central Canada Company, but it would unquestionably have suffered in prestige if the company to which it had given birth, and which it had housed, had not been able to settle dollar for dollar. The happy outcome of this problem is a matter upon which I think we may well congratulate ourselves, particularly when it is recalled that it was effected without disturbance to the continuity of our advisory service in insurance matters.

Special Ontario Convention.

The circumstances which necessitated a special convention of our Ontario members form another interesting chapter in the work of the past year. When the history of workmen's compensation legislation in Canada comes to be written, the name of our Association will loom large in its pages with references that cannot but redound to our lasting credit. Unfortunately, owing to the exigencies of a difficult political situation, much of the thorough thought and patient representation which characterized our work went temporarily for naught. Not only that, but our attitude was persistently and deliberately misrepresented so often that at times it required all the restraint that wiser counsels could bring to bear to prevent the issuance of a manifesto, which might possibly have reacted upon our Association, but which would at least have disclosed a situation in which the Ontario Government would have found little to take pride. While the silence of the Committee may have been misconstrued by some of the more aggressive of our members, time will demonstrate, I feel sure, that the course pursued was the best one under all the circumstances, and in view of all the possibilities the situation contained.

Continued Growth of Membership.

It is gratifying to be able to report another increase in our membership. Small though it is, it is nevertheless better than might have been expected, considering the unfavorable business conditions under which we have been laboring. Since the close of our books on April 30th, we have made a gain equal to the gain of the previous nine months, so that the outlook for some effective work during the summer months is bright, more especially as at that time of the year the members of your staff can best be spared for outside canvassing.

Visiting Branches.

For reasons that will be suggested on what I have already said, the president and myself were this year unable to pay official visits to the Branch in the East and in the Far West. The holding of a Convention in Halifax as recently as last September will at least explain, if it does not excuse, our failure to do our duty by the Nova Scotia Branch. The need for a visit to the Western Branches was more urgent, especially by reason of conditions of an unusual nature that have developed in British Columbia, where an association of manufacturers has been formed independent of our organization altogether. I expect, however, to leave for the Coast in the course of the next few weeks, in company with at least one member of the Executive Committee, and I hope also with our new President.

The Trade Sections.

On the part of your Trade Sections I am sorry to be unable to report any marked increase of activity. Better results are hoped for from two new sections now in process of formation, one the Boot and Shoe Section, which will consolidate into one association three organizations of more or less local scope, the other the Graphic Arts Sections, that will be referred to at length in the report of the Executive Committee. If the programme in each case is carried out according to expectations, our membership should feel an appreciable benefit.

New By-laws Satisfactory.

The new by-laws which in your wisdom you saw fit to adopt last fall have worked out very satisfactorily. The Constitution of an Executive Committee, to act as the Business Committee of the Council, has proved itself to be a most happy provision. But for the assistance and advice which it so timely afforded over and over again, and the weight of responsibility which it took off the shoulders of your staff, some of the results to be reported at this meeting in the profit column would almost of a certainty have appeared amongst the losses. Speaking for myself alone, I gladly testify to the fact that I found the Committee a veritable tower of strength, where strength was most needed, and to the individual members thereof I offer my grateful acknowledgements.

Thus far no advantage has been taken of those clauses in the by-laws which made provision for a Contingent Banking Account, out of which to pay current expenditures from month to month. The view obtained that before moving in that direction we should first accommodate ourselves to the changes really necessitated under the new form of Government, and on the whole I think it is well that we did so, for the experience gained has cleared the way on many points that were more or less in doubt. This matter will shortly come up for the Committee's consideration, however, and whatever course is taken you may count upon the exercise of that same care in safeguarding the finances of the Association that it has always been your good fortune to enjoy under the treasurership of Mr. Booth.

Benefits of Changing Convention Date.

So far as that change is concerned which is responsible for the holding of this Convention in June instead of September, I shall leave you to be the judge of its wisdom and its success. If I may be permitted a word on behalf of the staff, I would say it has been most acceptable, as aiding in a happy solution of the summer vacation problem. It has also enabled them to secure, for the reports that will here be presented, a measure of consideration from our Committees that was impossible under the old arrangement, which necessitated the preparation of reports in August when the holiday season was at its height.

Distributing the Relief Fund.

As trustee for the unexpended portion of the fund raised for the relief of the sufferers of the Regina cyclone, it was my privilege last November to subscribe the sum of $1,000 toward the relief of the dependents of the sailors who lost their lives in the disastrous storm of that month. While not strictly an Association matter, for the money was subscribed by our members individually and not by the Association as a whole, I am prompted to suggest the advisability of authority

being given me now to pay over the balance of some $2,000 to the fund which is being raised for the relief of the sufferers by the Empress of Ireland disaster, for I can conceive of no worthier cause to which to devote it.

Death of Members.

It is with deep regret that I mention the death since last we met, of your only Honorary member, Lord Strathcona, whose long and faithful efforts for the advancement of Canada and Canadian interests we all appreciated so much. Due to the same inevitable cause, you will miss at this Convention the familiar faces of old and valued members of the Association like Mr. Wm. Algie, of Alton, Mr. F. F. Dally and Mr. J. A. Publow, of Hamilton, Mr. George H. Pedlar, of Oshawa, and Mr. L. H. Packard, of Montreal, whose interest in our work brought them frequently amongst us.

NOTE.—*This Report was adopted.*

On Behalf of the Staff.

In conclusion, allow me to say, on behalf of the staff, how much we all appreciate the privilege of being permitted to serve a body of men whose loyalty to their organization is so sincere and whose zeal for its welfare is so constantly in evidence. We value that privilege the more highly because of the fact that we can at all times conscientiously subscribe to the principles for which you stand. As marking our appreciation I can only hope that our handling of the matters you entrust to us will always be characterized by a whole-hearted effort that will at once justify your confidence, and convince you that we wish to take at least part of your compensation in the valued friendship with which you have honored us.

Respectfully submitted,

G. M. MURRAY, Secretary.

RECEPTION & MEMBERSHIP

IT IS a pleasure for your Membership Committee to be able to report that the termination of another fiscal year marks a new entry in the unbroken series of gains that have characterized the growth of the Association since its reorganization in 1899.

For two reasons the gain this year has been necessarily small. In the first place, it has been a nine-month instead of a twelve-month year, with proportionately less opportunity for your Committee to make a showing, and in the second place the general dullness of trade has led almost everywhere to the adoption of a policy of retrenchment which has not only made applications unusually difficult to obtain, but has considerably augmented the number of resignations that have had to be dealt with.

During the depression of 1907-08 the net gain in membership for twelve months was only 23; the previous year it was 57. The total membership at that time was between 2,100 and 2,200; to-day it is over 3,000. With somewhat similar business conditions, but with far fewer prospects to work upon, your Committee are of the opinion that a net gain for the past nine months of 36 shows up fairly well by comparison, and is on the whole a gratifying increase. While far behind the gain of 253 made in 1912-13 it represents an advance over 1911-12, when the gain for twelve months was only 29.

The Association began the year on August 1st last with a membership of 3,007. The applications received and passed totalled 154, the resignations 118, bringing the net total up to 3,043.

The following table shows the distribution of the membership by provinces for the past two years:

	1913	1914	Gain	Loss
Nova Scotia	104	99	..	5
Prince Edward Island	4	4	..	..
New Brunswick	63	66	3	..
Quebec	773	774	1	..
Ontario	1,696	1,702	6	..
Manitoba	232	253	21	..
Alberta and Saskatchewan	32	50	18	..
British Columbia	103	95	..	8
	3,007	3,043	49	13

The loss in Nova Scotia, immediately following a Convention in that Province, is disappointing, though it is but fair to recall the fact that the previous year in Nova Scotia showed a gain of 22. The evidence of continued growth in Manitoba, Saskatchewan and Alberta, following as it does on an increase



MR. J. W. HOBBS

Consolidated Plate Glass Co. of Can., Limited, Toronto, Ontario.

Elected Chairman, Membership Committee, 1914-15

After graduating from the University of Toronto in 1898, Mr. John W. Hobbs entered the glass business. Results have shown that he is not a man who "saw through a glass darkly." In 1904 he came to Toronto as local manager of the Consolidated Plate Glass Company of Canada, Limited. Four years later he became its Vice-President and Managing-Director. This chronological record of his career gives only a suggestion of the hard work that made it possible.

Mr. Hobbs has taken time from his business to devote himself to considerable public work. In 1900, he was elected Honorary Treasurer of the Canadian Shippers' Association, and a member of a committee of thirteen to act with the railways in drafting a new bill of lading, which is now in use. His genial qualities have been recognized by his election to the Chairmanship of the Membership Committee of the Canadian Manufacturers' Association; he is also in the Railway and Transportation Committee of the Toronto Board of Trade.

He belongs to the following clubs: York, University, National, and Royal Canadian in Toronto, and the North American Universities, London, England.

of 142 for 1913, is most encouraging, particularly in view of the disfavor with which the Association is said to be looked upon in those provinces. The results from that quarter are a tribute to the energy and efficiency of our Assistant Secretary for the West, Mr. Poussette, who has been indefatigable in his efforts to extend the influence and scope of the organization. British Columbia again shows a loss, which, while regrettable, is not surprising. Reports from the Coast indicate that trade has been unusually depressed, in addition to which the formation of a Provincial Manufacturers Association, independent of the C.M.A., has not been without its effect upon us.

The next table classifies the membership of the various provinces as on May 1st, according to the fee paid.

Province	$10	$15	$25	$35	$50	$100	$150	Total
Nova Scotia	60	13	15	6	3	1	1	99
Prince Edward Island	2	2	..	..	..	..	..	4
New Brunswick	37	13	9	3	4	..	..	66
Quebec	347	191	93	62	60	9	12	774
Ontario	859	347	193	189	90	15	9	1,702
Manitoba	188	38	16	9	2	..	..	253
Alberta and Saskatchewan	33	9	2	1	4	1	..	50
British Columbia	52	18	9	10	4	1	1	95
	1,578	631	337	280	167	27	23	3,043

An extension of each item in the preceding table affords a ready estimate of the income of the Association from membership fees, whether by classes of membership or by provinces.

					Class			
Province	$10	$15	$25	$35	$50	$100	$150	Total
Nova Scotia	$600	$195	$375	$210	$150	$100	$150	$1,780
Prince Edward Island	20	30	...	...	...	...	...	50
New Brunswick	370	195	225	105	200	...	...	1,095
Quebec	3,470	2,865	2,325	2,170	3,000	900	1,800	16,530
Ontario	8,590	5,205	4,825	6,615	4,500	1,500	1,350	32,585
Manitoba	1,880	570	400	315	100	...	...	3,265
Alberta and Saskatchewan	330	135	50	35	200	100	...	850
British Columbia	520	270	225	350	200	100	150	1,815
	$15,780	9,465	8,425	9,800	8,350	2,700	3,450	57,970

Owing to the unfavorable character of the business situation of late, your Committee felt that the time would be inopportune to engage in any extensive campaign of circularization for new members, feeling sure that the expenditure for literature and postage would not be justified by results. As usual, the Annual Meeting number of INDUSTRIAL CANADA was widely circulated among the prospects on our list, coupled with an appeal for support. Later on this was followed up with a booklet, setting forth briefly the character of the service offered by the Association and the advantages of membership therein. Neither of these experiments proved very fruitful. Unfortunately, the general work of the Association has been too heavy this year to permit of members of the staff giving the work of your Committee much of their individual time, although the Assistant Secretary for the West was able to visit a few of the prairie cities with satisfactory results. By far the larger part of the applications secured are to be credited to personal solicitation or to direct correspondence based on some point that was known to be of interest and so likely to appeal. A few members have lent their help most effectively, and to them the thanks of the Committee are due.

In dealing with resignations, the usual practice has been followed of accepting only after it is made apparent that the membership cannot be held. In cases of liquidation or discontinuance of manufacturing operations there is, of course, no room for argument; forty-six of the resignations accepted this past year were due to these causes. The most troublesome class is comprised of those who fall behind with their fees, who allow drafts to be returned unpaid, who will not answer correspondence, and who are so situated that it does not pay to have them called upon; no less than thirty-five had to be dropped for this reason. Fourteen firms cancelled their second memberships as being an unnecessary expense. The remaining resignations are to be attributed to a variety of causes, such as amalgamations, changes in management, business depression, etc. Instances of dissatisfaction with the Association were rare.

When the By-laws of the Association were recast last year, the powers and duties of your Membership Committee were considerably changed. Instead of simply recommending applications and resignations for acceptance, they now deal finally with them. Under certain circumstances they are permitted to delegate those powers to the Executive Committee. This they have done in the case of applications as to the elegibility of which there was no doubt, and in the case of resignations due to causes that left no room for argument. The frequency with which the Executive Committee has met has obviated the necessity of monthly meetings of the Membership Committee, whose duties have been greatly lightened in consequence.

All Branches and Trade Sections are now required to have their By-laws formally approved by your Committee. Notification was sent to the Branches early in the year asking for compliance. Many of them it appears had previously had no by-laws at all, and a good deal of doubt seemed to exist as to the form they should take. A careful examination of the Constitution and By-laws of the Montreal Branch, which were in particularly good shape, showed that they were readily adaptable for general use, and your Committee accordingly provided all Branch offices with a copy. With minor modifications these have been adopted by the Nova Scotia, Toronto, Hamilton and Manitoba Branches. Quebec and British Columbia have as yet failed to comply.

Owing to the long intervals at which many of the Trade Sections meet, no effort has been made to hasten their compliance. Some of them already have carefully worked out by-laws; others have none, their organization being so imperfect and so seldom used that they have never looked upon by-laws as really necessary. Before another Annual Meeting this omission can no doubt be largely rectified.

The outlook for the coming year, while not actually bright, is by no means without features of encouragement. Since the closing of the books on April 30th there has already been a gain of 31. The formation of a Printers' Section, authority for which has been given, promises to add considerably to the membership, and to strengthen the Association by bringing into the fold a number of publishers whose attitude in the past has been anything but friendly. A closer acquaintance with the real objects and work of the Association will, it is hoped, make lasting friends of these people. During the next few months there should be more frequent opportunities for members of the staff to move about, and call personally upon those who are not but should be members, in addition to which the General Secretary will shortly visit British Columbia where it is felt work of an important character can be done.

NOTE.—*This Report was adopted.*

Apart altogether from Canada's future industrial development, the membership of the Association is susceptible of wide extension. There is always a limit to what the staff can accomplish, handicapped as they are by other duties, but there is virtually no limit to what the members of the Association as a whole could do if each one would but take a personal interest in the work. The results that have attended the efforts of the few who have helped, point already to the fact that herein lies our greatest opportunity for future gains, and in concluding this report your Committee would earnestly bespeak the co-operation necessary to that end.

All of which is respectfully submitted.

N. A. HOWIE, *Chairman.* G. M. MURRAY, *Secretary.*

INSVRANCE

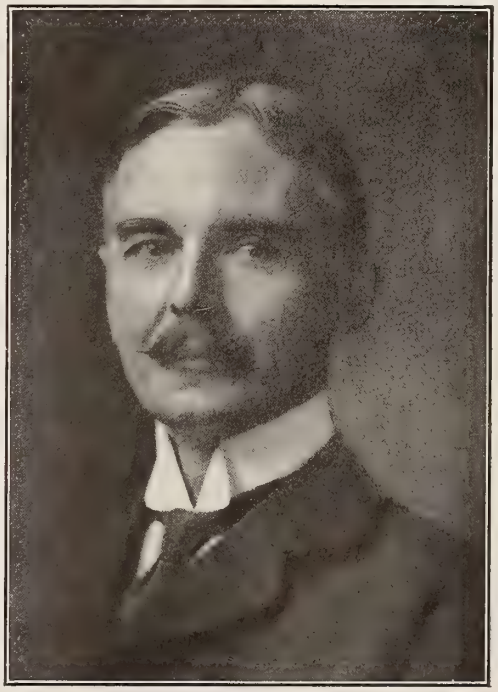
THE report which follows, dealing with the activities of the Association during the past year in the field of insurance, is submitted jointly by your Committee and by your representative on the Directorate of the Central Canada Manufacturers' Mutual Fire Insurance Company. The reason for this is that the outstanding events of the period under review are so intimately connected with the affairs of the company in question as to make their narration and explanation by means of separate statements difficult, if not impossible.

It is probably well known to you all that no department of the Association's service has been conducted under more adverse circumstances than has the Insurance Department, due to strong differences of opinion among the membership as to what was, and what was not, proper and legitimate work for us to undertake.

The establishment of the department in the first place was a logical outcome of the marked increase in fire insurance rates that followed all over Canada as a result of the Toronto conflagration of 1904. The prompt and apparently arbitrary action taken at that time by the Canadian Fire Underwriters' Association served to focus public attention upon a question of economics that had too long been allowed to pass unnoticed. A species of taxation which theretofore had largely been taken for granted was quickly recognized in its true light the moment it became burdensome. Loud and frequent complaints from members of the Association caused your Executive Council to appoint a Special Committee to study the situation, and it was the report of that committee, presented to the Annual Meeting in 1904, that formed the basis for the action subsequently taken.

Among other things, the report in question directed attention to the fact that in principle all insurance was essentially mutual. The premiums of the many were used to pay the losses of the few; as losses increased, so must premiums increase. In addition to paying actual losses, however, the payers of premiums to stock insurance companies had to support what looked like a very expensive business-getting organization, and provide as well for dividends to stockholders. Under a system of competitive insurance, the premium payers would benefit by the ever-present inducement for the companies to keep both their expense ratio and their loss ratio down to a minimum, but the absence of any evidence pointing to effective competition among the companies licensed to do business in Canada encouraged the belief that the insurance tax was becoming unnecessarily burdensome.

Various means of alleviating this burden were suggested. First it was pointed out that losses could be greatly reduced by the improvement of risks and the adoption of better methods of inspection. Next it was shown that outside of Canada there were competitive markets where insurance could be purchased at rates lower than those fixed by the C.F.U.A. Following this it was made clear that insurance, like anything else, could be bought more cheaply wholesale than retail, and that the centralization of the business of our members in one office would assuredly lead to better terms. Lastly it was suggested that members might unite to carry their own insurance in a purely mutual company.



MR. H. W. FLEURY
J. Fleury's Sons, Aurora, Ontario.
Retiring Chairman, Insurance Committee

As regards the last two points, it is important to recall the fact that even in the initial stages it was recognized that, whatever its members individually might do, the Association as such should never attempt to finance and operate an insurance company. As to the conduct of an insurance brokerage business, opinion was divided, but the very fact that there was any division of opinion suggested the advisability of refraining from embarking in such a business lest it alienate the sympathy of some of our best supporters.

Under authority granted by the Annual Meeting referred to, the Committee on Insurance proceeded to mature plans for the inauguration of a department, and in January, 1905, its plans were brought to fruition in the appointment of Mr. E. P. Heaton as Manager. A circular announcing the appointment indicated that the services which the department aimed to afford would include advice as to the standing of insurance companies, inspection of risks and the suggestion of improvements that would result in commensurate reductions in rates, examination of policies to see that they really supplied the protection for which the assured was paying, expert help in the adjustment of fire losses, etc.

For a time the department was kept busily employed along these and similar lines. Members were quick to appreciate the value of a bureau to which they could apply for disinterested advice on any phase of insurance, and the readiness with which they used it and the variety of problems they presented soon indicated new ways in which the service could be strengthened and improved.

But from advising as to the reliability of companies and the reasonableness of rates, it was an easy and almost an inevitable step to the actual placing of insurance on behalf of clients. On business so placed brokerage commission cheques began to be tendered without being solicited. The revenues of the Association were not nearly so large then as they are now, and there was a feeling that the department should, if possible, make itself self-sustaining. The temptation to accept commissions, therefore, was strong, for it was seen that they would at least go far towards defraying the expenses of the office, and that they might, if consistently solicited, convert a deficit into a surplus.

With the approval of a majority of the Council the commissions were accepted, and the Association was thus definitely launched in the insurance brokerage business. The decision so to act was, however, not unanimous. The motion was opposed by members who, while perhaps not strong in numbers, were forceful and persistent in the presentation of their objections. They contended that the Association should support itself and all its departments from its membership fees, that if those fees were not large enough they should be increased, that it was no part of the function of the Association to carry on a business, particularly if that business necessitated its entry as a competitor into a field already occupied by firms of standing. Apparently these views were held more widely among the membership than was at first supposed, for the brokerage business never assumed the proportions that its sponsors hoped for, though it did yield a revenue that tided the department nicely over the financial shoals that at first threatened to prove its undoing.

Meanwhile the antagonism manifested by the C.F.U.A. and the persistence of that organization in maintaining its rates at a level higher than what the Association considered either reasonable or necessary gave rise to an agitation for the formation of a mutual insurance company. From the large and widely-scattered membership of the Association it was urged that a sufficient volume of business should be available to yield a fairly stable average for losses, and that from that basis, by the gradual accumulation of a reserve, a company could be built up that for stability and cheapness would eventually compare favorably with the New England Mutuals. As a rate reducing factor it was clearly recognized that a Canadian Mutual, restricted to factory risks, would not and could not of itself be very potent. The vast majority of risks offering would probably be of a kind upon which it would be unwise for a mutual company to take a line. In any event the total business it could write, compared to the aggregate of Canadian factory insurance, would be infinitesimal. If carefully handled, however, it did not seem unreasonable to suppose that a Canadian Mutual could be used to prove the adequacy of rates much lower than those quoted by the C.F.U.A., and if it did this, and nothing else the promoters believed it would justify its existence.

Curiously enough, this proposal served to reconcile the differences of opinion that had arisen over the brokerage question. It might or it might not be legitimate for the Association to operate a brokerage business, but there could be no conceivable objection to such a business being operated by an insurance company that was financially independent of the Association, but that worked closely in harmony with it.

It would hardly be correct to state that the formation of the Central Canada Manufacturers' Mutual Fire Insurance Company was hastened by any such design, or that such a design was even consciously in mind when the company was in process of formation. But when the company received its charter and when the services of Mr. Heaton were requisitioned to manage it, it was with no little satisfaction that the Insurance Committee turned the brokerage business over to the company, stipulating that as a consideration the company should furnish the Association, without charge, the same advisory service in insurance matters that it had previously enjoyed from its own department. Subsequently, on representations from the company that the furnishing of this service was becoming a heavy charge upon the time of its officers, the Association voted the company an allowance of $1,000 per year, a sum that was later increased to $2,000.

During the tenure of this arrangement, the status of the Insurance Department was nominally the same as that of any other department. It had its committee for the supervision of its service, and its chief officer ranked as an officer of the Association, with the title of a Departmental Manager. His contract of employment, however, was with the company, not with the Association, so that his responsibility to the Association was really secondary to his responsibility to the company. It was perhaps as much a tribute to Mr. Heaton's tact as it was evidence of harmonious working relations that this division of authority led to no clashes, but the element of good fortune which attended the operation of this arrangement by no means condoned its inherent weakness, for under abnormal conditions it might at any time have led to an impasse with consequeaces of a serious character.

Parenthetically it is important to note the rapid transformation through which the department passed. Formed in 1905 as a purely advisory Bureau, under a Manager of ascertained ability to furnish advice on technical problems of insurance, with little thought that he might be charged with financial responsibilities, it first developed a brokerage business, then organized a mutual insurance company, then gave its Manager to the company so formed, and finally allowed itself to be taken under the wing of its protégé, all within the space of three years.

With the financial progress of the company from year to year, it has not been thought necessary to bother you. In the initial stages business was secured with a readiness that augured well for the success of the enterprise. Three million dollars of insurance in three months, with not more than ten thousand dollars on any one risk, was surely not only a record to be proud of, but one that encouraged the brightest

hopes for the future. Contrary to expectations, however, what might be called the point of saturation was soon reached. By the end of the first year the company had virtually as much business on its books as it had at the end of the sixth. New lines were acquired with increasing difficulty, and more frequently than not were offset by lines that were withdrawn, leaving the company no further ahead.

This disappointing turn of events is best explained by the fact that the principle of mutual insurance is inherently objectionable to a great many people, especially business men who do not care to assume the contingent liability which that type of insurance carries with it. To be attractive, mutual insurance must be cheap; when it ceases to be cheap, or relatively cheap, it loses its only advantage over stock insurance. The Central Canada Company, with its nondescript risks and its limited volume of business, could not begin to quote rates that would compare with those of the best mutuals; besides that, it had none of the advantages which those mutuals had to offer in the way of reserves. On the other hand, it could not cut sufficiently below the rates of the tariff companies to make its policies attractive, especially in view of the contingent liability they involved. Under these circumstances it had to depend for support upon a comparatively small number of enthusiasts, and a few who were willing to take a chance; to the large majority of our membership the success or failure of the company was from the beginning apparently a matter of indifference.

It is also a noteworthy fact that from an operating standpoint the Central Canada Company chose a most inopportune time to enter the insurance field. There was a time when fire insurance in Canada was a fairly profitable business, but during the past decade the loss ratio for all companies has been abnormally high. Failures have been numerous, especially among the younger and weaker companies, that were not fortified by reserves to stand the strain. The Central Canada Company had its full share of losses, all of which had to be met out of current income, for it had practically no reserve. The wonder is, therefore, not that it was obliged to cease operations, but that it was able to keep itself alive so long.

By using the earnings of the brokerage business and by negotiating a bank loan the company was enabled to keep its head above water for some time after its position had become precarious, but by November last its finances had been depleted to a point where an assessment on the mutual policyholders could no longer be avoided.

In determining the amount of the assessment, the directors were confronted with the whole question of the company's future. Should an effort be made to continue it in operation, or should the advice of its Manager be accepted and the company wound up? If the former, the assessment would need to be sufficiently large to re-establish the re-insurance reserve and to provide working capital; if the latter, it would need to be little more than enough to discharge existing liabilities. On the other hand, a heavy assessment was much more likely to lead to cancellations than was a moderate assessment, so that any design to put the company in funds by that means might really hasten its liquidation. This, it was felt, should be avoided so long as there was any possibility of keeping the company alive. Its charter was held to be valuable, and if it could be sold as a going concern a certain value would attach to its good-will. For the credit of the Association, too, it seemed desirable to keep the company from going under because of a certain loss of prestige which it was thought might follow. For these reasons the directors decided to call up only 15 per cent. of the premium notes, hoping that the amount so realized would tide the company along until conditions had righted themselves.

It is a pleasure to be able to report that on the whole this call was met in good spirit and paid without complaint. Naturally there were some cancellations, and a few protests, but they were less numerous and less serious than the directors had anticipated.

Meanwhile the Manager kept pressing for a favorable decision on his recommendation to liquidate. To do him justice it should be stated that nearly a year before he had pointed to the likelihood of the company having to be discontinued. On December 10th, following the adoption of a vote to continue operations, Mr. Heaton resigned as Manager of the company and as Manager of the Insurance Department.

His resignation to the company was immediately accepted, and the other followed more or less as a matter of course. To have retained him as Manager of the Insurance Department under a plan which had previously been considered by the committee would have involved the assumption of much greater financial responsibilities than the Association was prepared to undertake. Further, it would have made the Association once more the proprietor of a brokerage business, a proprietorship which previous experience had shown to be undesirable.

Immediately Mr. Heaton's retirement was made known the directors of the company and your Insurance Committee were confronted with a variety of propositions from firms and individuals who were desirous of securing the Association's connection. All of these had in view either the taking over of the company or the continuance of the insurance service. Before dealing with any of them the directors deemed it important to have an independent audit of the company's books, and an independent report by insurance experts on the character of the company's business, and the prospects for its future. For this purpose Mr. Robert Miller, a Montreal Chartered Accountant, and Messrs. Willis, Faber & Co,. Limited, Insurance Brokers, were called into consultation.

The moment this action was taken the directors found themselves hampered and embarrassed at every turn by two firms of brokers, who had had frequent dealings with the Central Canada Company. These firms contended that it was distinctly unfair to give a rival firm of brokers access to confidential records and schedules which the Central Canada Company had obtained from them in the ordinary way of business. They argued that the information so obtained would subsequently be used to their detriment. In an effort to intimidate the Board they first threatened an injunction, next the issuance of circulars to their clients calculated to disturb confidence in the company and so invite cancellations. A sudden zeal to study the interests of their clients then led them to press for information before the audit was completed, under threat of an application to the Dominion Superintendent of Insurance to cancel the company's license if that information were not immediately forthcoming.

Coincident with these troubles there arose others of a technical character which gave the directors, and indirectly the Insurance Committee of the Association, an anxious time. For instance the warranty of the Central Canada Company had frequently been used to bind insurance with Lloyds. Lloyds' cover was conditioned on the payment of the same rates and the application of the same conditions as governed the Central Canada policies. Did the action of the company in making an assessment constitute an increase in rate that became automatically payable on Lloyds insurance as well? Could the failure to have paid that additional rate to Lloyds have been cited by the latter as justification for refusing to pay a possible loss? Or, again, was the amount of cash business, which the company was permitted to write, always kept within the limitations stipulated in the charter? If not, would a mutual policyholder be within his rights in repudiating an assessment that had been necessitated by losses on

cash business? Had the kind of insurance written always been such as the charter expressly authorized? If not, what recourse would a policyholder have against the company in the event of a loss occurring on a risk so insured?

The Board were still grappling with these and similar problems when the reports of the gentlemen above mentioned were presented to them. The financial statement indicated a probability that, providing action were taken quickly so as to minimize the chance of further losses, the company could be successfully liquidated so as to meet every obligation in full. The report of Willis, Faber & Company, on the other hand, showed that were operations to be continued it would be immediately necessary either to call up another and a much heavier assessment or else convert the company into a stock company and secure in the neighborhood of $40,000 paid up capital. The limited business enjoyed by the company in the past did not warrant the belief that either experiment would be justified, particularly in view of the disfavor into which insurance stocks had fallen and the general tightness of money then prevailing. Under all the circumstances, probably no one will question the wisdom of the directors' decision to liquidate at once.

It was regarded as of real importance, however, that the winding up of the company should not be allowed in any way to interrupt the continuity of the Association's insurance service. That service, it will be recalled, had been supplied for some years by the company through its staff. The removal of the company, therefore, placed the Association under one of two necessities: either it must engage a staff of its own, or else it must find another company willing to allow its staff to be used in giving the service. The former course would have involved an addition to the fixed charges of the Association which it would have been very difficult to finance without resorting to brokerage commissions. Happily the brokerage business, the title to which automatically returned to the Association on the elimination of the company, again supplied the consideration which made the problem not only possible, but easy of solution.

After first satisfying themselves that among the firms already established in Canada there was none of higher standing, better reputation, or with more valuable connections than Willis, Faber & Company, your committee, together with the company directors, entered into negotiations with these people and concluded with them an arrangement whereby, in return for being appointed Managers of the Insurance Department and having the brokerage business transferred to them, they agreed to liquidate the company without charge, to finance that liquidation pending the release of the sum on deposit with the Government, to furnish free to all members of the Association wishing to avail themselves thereof a service equal in all respects to that afforded by the department in the past, and to extend and improve that service, particularly in the direction of the inspection of risks, just as rapidly as the profits accruing to them from the connection would justify. In the event of the liquidation of the company giving rise to a shortage they were to be protected by the personal guarantees of the directors and by an assignment from the Association of its lease of that portion of the office premises to be occupied by them. The most, therefore, that this arrangement can commit the Association to is the payment of Willis, Faber & Company's rent for three years at $2,000 a year, or exactly the sum which was formerly paid the Central Canada Company.

This happy issue, from what at one time looked like a serious difficulty, is a matter upon which the Association may well congratulate itself. While never financially responsible for the Central Canada Company, the Association allowed the company to be formed under its auspices, and, to a certain extent, therefore, was morally responsible to those who were influenced by their loyalty to the Association to accord the company their support. A forced assignment would have been expensive for mutual policyholders and hurtful to the solidarity and prestige of the whole organization, but a voluntary liquidation, with all creditors paid in full, has defeated the prophesies of hostile critics and given ground for the hope that the stigma of dishonor or of failure will never attach to any enterprise backed by the Canadian Manufacturers Association.

The department as now reconstructed gets back once more to first principles. The only difference is that whereas originally we had an individual as its Manager, we now have a firm. In function it is essentially advisory. Its Managers possess in the highest degree the knowledge and experience so necessary to the proper discharge of that function, and the reputation for fair and honorable dealing that always invites confidence. In their private capacity as insurance brokers with a business that is almost world-wide, they are able to serve members in the actual placing of insurance to excellent advantage, and it is only right that your committee should here record the opinion that the generous assistance given the Association by Willis, Faber & Company in the midst of a difficult situation has earned for them the gratitude of our members, who, it is hoped, will duly evidence their appreciation by according the firm in question some portion of their patronage.

By means of a series of circulars, the first of which was issued quite recently, the new Managers propose to emphasize the value and elaborate the character of the various services the department is prepared to afford. They also propose to enlarge upon certain aspects of insurance which their experience has shown them business men are not as familiar with as they should be. Their aim is to make the department genuinely useful. Thus far their tenure of office has been too short to permit of very much in the way of results, more especially so since matters arising out of the liquidation of the Mutual Company have been a serious charge upon their time. A year hence, however, it should be possible to report substantial progress, and, pending a fair period of trial, your committee bespeak the confidence and co-operation of the entire membership in the new régime.

Legislation.

Adverting now to other matters, it is important that the consideration of this meeting should be invited to the tendencies that have characterized recent insurance legislation enacted by the Provinces.

Since the beginning of 1913, Alberta and Saskatchewan have both passed laws that virtually create a monopoly for the fire insurance companies actively engaged in business within their borders.

These companies are nearly all in a tariff association, the members of which agree to observe the same rates and rules. A property holder who is unable to secure from them satisfactory rates or conditions may go outside the Province to purchase insurance, but should he do so he is obliged to report that fact within thirty days to the Superintendent of Insurance for the Province and pay a tax amounting to 50 per cent. of the premium. As a means of enforcing these provisions the Superintendent in Alberta may at any time require any person or firm holding property in the Province to file a return showing all insurance carried, with the name of the insuring company, the amount of each policy and premium paid in each case; the Superintendent in Saskatchewan is given power to examine the books and records of any property holder so as to determine the amount of his insurance and where it is placed.

The tax of 50 per cent. levied in these cases amounts virtually to prohibition. The property holder wishing to in-

sure is forced to deal with companies holding a Provincial license, and has very little chance of obtaining relief should the terms be unsatisfactory. Ontario and Quebec tax unlicensed insurance, but only at the very moderate rates of three-quarters of one per cent. and one per cent., respectively. These latter percentages represent the amounts the Provinces would have received from registered companies had the business been placed with them. They protect the registered company against the unregistered without imposing any undue burden on the insured. But a 50 per cent. tax operates as a prohibition, as it is no doubt intended to be. It is laws such as these, carried as they are to extremes, that are making it more and more imperative to test the constitutionality of the restrictions placed upon the owners of insurable property doing business with unlicensed companies.

No one can successfully argue that companies unlicensed in this country should be accorded all the rights and privileges enjoyed by companies that are registered. The fees paid by the latter entitle them to some protection. That protection they secure through the fact that their unlicensed competitors must labor under serious disadvantages in attempting to underwrite business at a distance and without local representation. Under no circumstances does the law admit of these unlicensed companies having representatives in Canada, and to this no reasonable exception can be taken. Nor would there be any serious objection to the further handicapping of these companies by a moderate tax on the assured, or his insurance broker, on such business as was placed with them. Licensed companies have to contribute to the taxation of the Province, and it would seem only fair that unlicensed companies, or those who patronize them, should do the same. But it does not seem right that the owner of property should be deprived of his rights to go outside the country in search of competitive rates when local rates or conditions become unduly burdensome.

Curiously enough, the new laws in Alberta and Saskatchewan have been carried to a point where even the licensed companies are objecting. With a view to protecting the local agent, they require that all policies issued by such companies shall be signed by an agent resident in the Province. A manufacturer with headquarters in Winnipeg and warehouses in Saskatoon and Calgary might take all his insurance business to a firm of general agents in Winnipeg, yet the latter would have to send the policies on the outside risks to local agents at those points for signature and divide the commissions with them. Circumstances might easily arise where a policy would have to receive its final mark of legality in the signature of an agent residing hundreds of miles away who never heard of the risk, and knew absolutely nothing about it, but who would nevertheless receive a handsome commission for the mere act of signing his name.

The question of federal versus provincial jurisdiction in insurance matters will arise in connection with a case shortly to be argued before the Privy Council. Should the decision be in favor of the provinces it is not unlikely that provisions similar to the above will be given a wider application, and monopolistic tendencies carried to an even more ridiculous extreme.

Fire Prevention.

Notwithstanding the great quickening of interest in Canada during the past few years in the subject of fire prevention, our losses keep increasing at a rate that should give us cause for real concern. The following figures tell the story in brief form:—

Canada.	1911.	1912.	1913.
Total fire losses	$21,459,575	$22,900,712	$26,346,618
Monthly average	1,788,298	1,908,393	2,195,551
Per capita loss	2.98	3.05	3.29
No. of fires resulting in loss of $10,000 or over	286	318	358
No. of lives lost	317	203	236

For the first three months of 1914 the total losses were $7,856,613, as against $7,661,527 for the corresponding period of 1913, $9,904,217 for 1912, and $4,043,975 for 1911.

Of the various remedial measures adopted in the United States, none has been found so effective as careful inspection by uniformed officers of the Fire Department, accompanied by a reporting system that is carefully followed up. Movements in this direction have almost invariably met with strong opposition from Fire Chiefs, on the ground that the men cannot be spared from duty long enough and regularly enough to make inspection worth while, but the experience of those cities that have given it a fair trial all goes to show not only that the fears of officialdom have been unfounded, but that the number of preventable fires is being greatly lessened, with resultant losses decreasing in proportion. In New York one man is detailed for inspection duty every morning from each of the 300 fire halls the city maintains. In this way no less than 325,000 inspections were made during the first three months of this year, in the course of which 5,000 cases of faulty conditions were reported and subsequently corrected. New York's per capita loss of $2.24 for 1912 was reduced to $1.36 in 1913, mainly through the application of proper methods of prevention following inspection. So great is the importance attached to these results that this year it is proposed to arrange for a monthly inspection of every risk in the congested area.

In Montreal inspection was first begun in a small way in 1908. The following figures, taken from a report of Chief Tremblay, afford some very interesting comparisons:—

	1908.	1909.	1910.	1911.	1912.
Population ..	373,000	389,837	456,000	466,197	530,437
Area (acres)	11,029	11,420	25,747	25,747	26,120
Total No. of calls	1,689	1,759	2,143	2,717	2,665
No. of calls in congested area	163	117	89	77	62
Total fire losses	$989,000	$846,385	$1,080,000	$1,045,000	$1,160,000
Loss per capita	2.65	2.17	2.39	2.24	2.18
No. of inspections	7,157	16,253	18,592	24,997	30,023

The significant feature of this statement is that while the total number of calls has steadily increased with the growth in area and population, the number of calls from the congested district, where naturally most of the inspection was done, has steadily decreased.

The encouragement of such work, and arranging for its extension to other municipalities, is one of the duties properly attaching to the office of Fire Marshal, the creation of which has been persistently urged by this Association on all the Provinces. The Legislatures of Manitoba and Saskatchewan were the first to move. This year Ontario has fallen into line by enacting a measure which confers upon the officer to be appointed, and upon his accredited deputies, the right of entry upon shop, warehouse, store and other hazardous premises for the purposes of inspection, with full power to order the correction of such faulty conditions as may be discovered. Your committee would recommend that

before this meeting closes a resolution be adopted strongly urging similar action upon all Provincial Governments that so far have failed to respond.

Mainly as a result of the educational campaign initiated by this Association two years ago, Fire Prevention Associations have now been organized in Nova Scotia, Montreal, Ontario, Manitoba, and possibly other places. Representations have been made to your committee that this Association should contribute in some small way to the financing of these organizations. While regretting their inability to report favorably thereon, your committee recognize that the Association is not without responsibility in an economic problem that is partially created by the hazards of manufacturing, and they would recommend, therefore, that during the coming year a series of pamphlets be prepared and distributed, each one dealing fairly exhaustively with some phase of fire prevention work. Their thought is that the completed series should constitute a compendium of information on a subject about which all too little is known, and that as far as practicable individuals and municipalities should be encouraged to pursue the courses of action that would be outlined therein.

NOTE.—*This Report was adopted.*

All of which is respectfully submitted.

H. W. FLEURY,
Chairman.

G. M. MURRAY,
Secretary and Representative on the Directorate of the Central Canada Manufacturers Mutual Fire Insurance Company.

LEGISLATION

A COMPARATIVELY quiet year is the gist of the report of your Legislation Committee. Fewer bills than usual have required our attention, and these in the main have been amendments to existing legislation. On the other hand such matters as have received the constructive attention of your Committee have been marked by satisfactory progress.

Company Incorporation and Licensing.

In October of last year the judges of the Supreme Court handed down their judgments in the stated case referred to them by the Dominion Government covering the disputed questions with respect to the jurisdiction of the provinces and the Dominion over the incorporation and licensing of companies. The stated case embraced a variety of questions, the two chief questions being:—

> First, whether a company incorporated under a provincial charter was competent to carry on business outside the incorporating province, and,
>
> Second, whether a company incorporated under a Dominion charter could be required to become licensed or registered under provincial licensing Acts before carrying on business in the different provinces.

As to the first question it is difficult to summarize the opinions of the judges in general terms. Their effect may best be indicated by the illustration of a company incorporated under a provincial charter to manufacture, buy and sell agricultural implements. Three of the six judges hold in effect that such a company could not carry on its manufacturing outside the incorporating province, though it might purchase its machinery and materials, and perhaps sell its products, outside the province.

As to the second question the majority of the judges hold that provincial licensing Acts are valid if bona fide for the purpose of taxation. Only one of the judges goes to the length of supporting specifically the licensing Act of the province of British Columbia. It is expected that the stated case will be appealed to the Privy Council.

In the meantime there have also been brought before the Privy Council two cases raising directly the question of the validity of the British Columbia Act in its application to Dominion companies. The appeals in the cases are being heard at the sittings of the Privy Council this July, and a decision is expected soon thereafter. Mr. Wegenast, who has been acting for the appellants, will appear on their behalf before the Privy Council. It is expected that the decision in these cases will determine not only the question of the validity of the British Columbia Act, but also the Acts which are in force in all the other provinces, except Quebec and Prince Edward Island, and which require a Dominion company to become practically re-incorporated before carrying on business in the Province.

In this connection members are reminded that the Legal Department affords every facility for advising upon and undertaking the work of incorporation of joint stock companies and all work incidental thereto. In connection with this and other matters within the scope of the work of the Department members will find it to their advantage to consult the Department before taking any action by way of registration or incorporation.

Bankruptcy System and Commercial Courts.

Under specific instructions from the Annual Meeting and the Executive Council, your Committee gave further careful consideration to the subjects of a federal bankruptcy or insolvency law and to the proposal to establish a system of commercial courts.

Your Committee found the two subjects closely interrelated. The institution of a bankruptcy system would involve one of three alternatives: (*a*) Committing jurisdiction over bankruptcy matters to the judges of the superior courts of the provinces; (*b*) Extending the powers and jurisdiction of the Exchequer Court of Canada to embrace bankruptcy matters; (*c*) Establishing a new court or Commission with jurisdiction over bankruptcy matters. The feasibility of establishing a system of commercial courts would depend largely upon which of these three alternatives was adopted in establishing a bankruptcy system. If the first alternative were adopted the establishment of a system of commercial courts would be a separate and independent undertaking and one involved in considerable difficulty both as regards the practical working out and the approval of public sentiment. If the second alternative were adopted it would require only a further step to extend the jurisdiction of the Exchequer Court to cover adjudication of commercial causes. If the third alternative were adopted the establishment of commercial courts could be still more readily accomplished by

a simple extension of the jurisdiction of a body already dealing with a purely commercial subject.

Apart from action by the federal Parliament it would be practically impossible to work out a system of commercial courts, one prime consideration in such a system being that of uniformity as amongst the different provinces. In the United States, Germany and other federal countries, commercial courts are under federal jurisdiction and a system under local jurisdiction would probably not be seriously considered in this country.

This consideration suggests another which, while perhaps not a determining factor, should, at all events, not be ignored. Both of the proposals of a bankruptcy system and of commercial courts, involve something in the nature of subtraction from provincial jurisdiction. Any bankruptcy law that might be adopted would automatically supersede the provincial laws governing insolvency and a system of commercial courts would withdraw a certain class of cases from the provincial courts. If not carefully handled either of the proposals might encounter considerable opposition from some of the local Legislatures or public sentiment in some of the provinces. The restiveness of local sentiment has already been shown in the opposition offered by the Winnipeg Branch of our Association and by branches in Manitoba and elsewhere of the Canadian Credit Men's Association. Whether this opposition is well advised or not it is a factor to be reckoned with.

The meeting of the Council held in Montreal on the 15th May, 1913, approved of the principle of a bankruptcy system, and in pursuance of this expression of opinion your Committee gave some consideration to the subject and through the medium of "Industrial Canada" published material bearing upon the subject and inviting an expression of opinion So far, however, very little active interest has been shown by the membership at large in the subject and while a Sub-Committee has been appointed to formulate some definite proposals your Committee consider it desirable that some expression of opinion or some further instruction should be given to justify your Committee in undertaking any positive action by way of advocating either a bankruptcy system or a system of commercial courts. Your Committee inclined to the opinion that this Association might well rest upon its expression of approval of the principle of the two proposals leaving it to other interests more vitally concerned or to Parliament itself to undertake initiating activity.

Conditional Sales Legislation.

Manufacturers of certain classes of goods have experienced difficulty in some of the provinces in holding goods sold under lien contracts against landlords of property upon which the goods have become fixtures. In some of the provinces there are provisions either in the Conditional Sales Acts or the laws relating to landlord and tenant enabling a lien holder to enforce his security as against a landlord or subsequent purchaser. The Committee is taking advantage of every opportunity to secure amendments to the laws of the other provinces to the same end. At the past session an amendment was made to the Landlord and Tenant Act of New Brunswick suspending the landlord's right of distress in the case of goods purchased under lien contracts and not paid for. An effort was made to secure a similar amendment to the Nova Scotia law and it is proposed to continue this effort at the next session of the Nova Scotia Legislature.

The absurd provisions adopted by the Province of Alberta by way of making lien contracts for the sale of farm implements subject to revision by any judge before whom they come in issue have borne their legitimate fruit in a restriction of credit on farm implements.

A difficulty which was foreseen and which must arise in multiplied form until this law is repealed, is that of the interpretation of the words "farm machinery." The question has arisen whether an automobile is a farm machine within the meaning of the Act. These questions must presumably in due course find their way to the Supreme Court of Canada or perhaps the Privy Council before it is possible to advise definitely whether a contract for the sale of an automobile on the instalment plan to a farmer will stand the test of law or not.

An Act similar to that of Alberta was proposed in the Manitoba Legislature but the representatives of the local Branch were successful in securing the withdrawal of the bill. The Committee venture to renew the suggestion made in the report of last year, namely, that manufacturers of implements might well get together by way of drawing up a standard form of lien agreement which would be satis-



MR. J. R. SHAW

Canada Furniture Manufacturers, Limited, Woodstock, Ontario.

Elected Chairman, Legislative Committee, 1914-15

It was away back in the nineties that Mr. John Ross Shaw, the subject of this sketch, became identified with the furniture manufacturing industries of this country. He was then Solicitor for the Furniture Association, and in the years that followed, through constant contact with manufacturers in this line of business, and the problems they had to solve, he conceived the idea that an amalgamation of the many Ontario industries engaged in furniture making would work for the betterment of all concerned—manufacturer, workman, and retailer alike. In 1899 he was successful in interesting capitalists in the proposal to acquire by purchase, furniture factories in Wiarton, Berlin, Walkerton, Seaforth, Waterloo, Wingham and other Ontario towns, and later on Woodstock was added to the list by the acquisition of what was then and still is the largest furniture manufacturing plant in the Dominion, founded in 1843 by James Hay. The Company which in 1899 came into existence was the Canada Furniture Manufacturers', Limited, and by steadily pursuing the original policy of specializing at its various plants, the product of this Company enjoys to-day a reputation that any manufacturer might well envy. Mr. Shaw, or "J. R." as he is most generally known among his intimates, has held the position of Managing-Director ever since the Company began its operations, and for many years has also been its Vice-President. He enjoys the confidence not only of his associates connected with the Company, but to a remarkable degree of his fellow manufacturers in the same line of business. He has always taken an active part in the affairs of the Canadian Manufacturers Association and has served in various capacities on the different committees and particularly of late in connection with the Workmen's Compensation Bill.

factory to the provincial governments and would remove an incentive to such legislation.

Housing Legislation.

The increase in the population of Canada and the tendency to congregate in urban centres has developed a need for legislation looking towards the promotion for better housing



MR. F. W. WEGENAST
Legal Secretary, C.M.A.

facilities and better regulations of the growth of towns and cities. The conditions that exist in many of the larger European and American cities have induced those who have given serious thought to the subject to anticipate and forestall a repetition of like conditions in this country. An instance of empowering legislation is the Ontario Housing Act, which through the efforts of the Toronto Housing Company and the sympathetic co-operation of the Provincial Secretary was successfuly promoted and adopted in the session of 1913. Similar Acts have since been adopted in Manitoba, New Brunswick and Quebec. These Acts provide facilities whereby congested and slum areas and unsanitary houses may be replaced by dwellings which will be available at a price which can be met by the workingmen and at the same time enable them to live in a pleasant and healthy environment.

In town planning the provinces of New Brunswick and Alberta have already placed on their statute books enactments conducive to controlling the development of urban communities. The Commission of Conservation of Canada has given the movement for such legislation an impetus by suggesting a draft Act for the consideration of the various provincial governments. Public opinion having been brought to a realization of the importance of the question it may be reasonable to expect that Acts of a more or less uniform character will be adopted in the various jurisdictions.

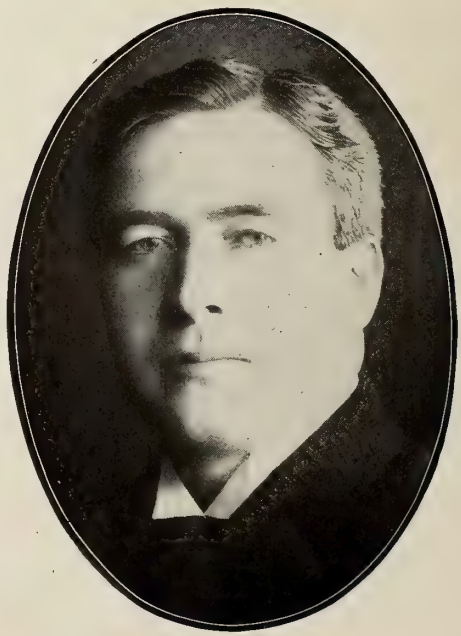
Hoisting Engineers' Bill—Ontario.

Some of the provisions of the Hoisting Engineers' bill which was at three previous sessions defeated, in the Ontario Legislature, were introduced at the last session in the form of a bill to amend the Stationary Engineers' Act, and after some amendment were passed. The general effect of the legislation is to bring hoisting plants "used for hoisting structural operations or excavating purposes," under the provisions of the Stationary Engineers' Act, and subject them to the same inspection etc., as the ordinary stationary engines and boilers. The actual effect of the legislation is rendered vague by the wording of the clause defining its operation. It is not clear what is meant by the phrase "structural operations" and it would be impossible to say definitely whether those words would cover operations in a structural steel industry or not.

Bulk Sales Legislation.

A Bulk Sales bill was introduced in the Ontario Legislature at the last session for the fourth time. At the previous session strenuous opposition to certain features of the bill had developed on the part of certain retail interests and it had been suggested by the Attorney-General that the different interests should get together and frame a bill which would be mutually satisfactory. This was done and the bill which was brought in at the past session was concurred in by our Association, the Boards of Trade, The Canadian Credit Men's Association and the Retail Merchants' Association. The measure was in fact introduced at the instance of the latter body. There was every reason to expect that being drafted on this basis the measure would go through without a hitch as all interested parties were satisfied. Notwithstanding this when the bill came up in the House for a second reading the Hon. I. B. Lucas, speaking for the Government, stated that he was personally unalterably opposed to the principle of the measure and that he must ask the mover, Mr. W. D. McPherson, to withdraw it, which he reluctantly did. Mr. Lucas assigned no reason for his action and none has been vouchsafed by the Government since.

In Saskatchewan, the Bulk Sales Act has been amended and consolidated to bring it more into accord with the Manitoba Act, which is generally conceded to be the most satisfactory Act in its actual operative effect.



MR. THOMAS FINDLEY
Massey-Harris Co., Limited, Toronto, Ontario.
Retiring Chairman, Legislation Committee

In Quebec representations were made to the Government to the effect that the Act did not give the manufacturer and the

wholesaler the protection which was required. It had been found by practice that under the existing law a creditor could only claim under the Act for the exact amount of goods procured from him which remained on the shelves of the retailer at the time of the bulk sale. The law was therefore amended at the recent session to provide that in making a sale *en bloc* the vendor should furnish the purchaser with a full list of his creditors, and it should be the duty of the purchaser to require such a list and see that the creditors were satisfied. In other words, all the creditors may claim equally for the full amount of their claims under the Bulk Sales Act.

Bulk Sales Acts are now in force in Quebec, Nova Scotia, Manitoba, Saskatchewan, Alberta and British Columbia.

Uniformity of Legislation.

The promotion of uniformity in the legislation of the different provinces in respect to such matters as conditional sales, insolvency, workmen's compensation, etc., has been kept in mind by your Committee. The movement will probably gain considerable support from the organization, some months ago, of a Dominion Bar Association which has this as the foremost object of its constitution. It is quite probable that your Committee will be called upon to co-operate with this and other associations in efforts to secure uniformity in the laws respecting some of the commercial matters above referred to, and it is hoped that substantial progress may be reported next year.

Representation in Legislatures.

Your Committee feel that some attention might well be given by the Convention to the fact that while manufacturing is, next to agriculture, the great basic industry of Canada, the number of persons either in the Dominion Parliament or the provincial legislatures who can in any sense be taken to represent the manufacturing industry is absurdly disproportionate to the importance of the industry. Your Committee has been particularly impressed with this fact during the last year when more than once legislation of a most radical and pronounced class type has been introduced in the various houses. It is not to be expected that others will safeguard the interests of manufacturers when the latter fail to look after their own interests.

Work of the Department.

The above comprise some of the more important matters dealt with by your Committee. A large number of matters of lesser importance, legislative and executive, have been the subject of consideration and action.

In addition to keeping in touch with legislative activities throughout the Dominion and endeavoring to protect the interest of manufacturers in the broader spheres the Department over which your Committee presides has enjoyed a year of increased activity in advising members in the special branches of commercial law to which it has been devoted. The Department is also finding an increased field of activity in advising and co-operating with other Departments such as the Transportation Department, and there is every prospect of a considerable enlargement of the work of the Department during the coming year.

All of which is respectfully submitted,

THOS. FINDLEY, *Chairman.* F. W. WEGENAST, *Secretary.*

G. M. MURRAY, *General Secretary.*

NOTE.—*This report was adopted, after being amended by referring back the paragraph on "Representation in Legislatures" for a report at the next convention.*

WORKMEN'S COMPENSATION

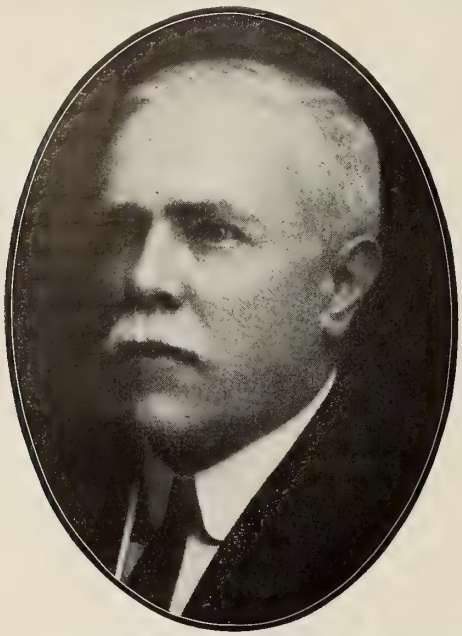
THE agitation and investigation upon the subject of workmen's compensation in the Province of Ontario having terminated in the passing of an Act at the last session, the work of this Special Committee is concluded and it is in order that a brief review be given of that work and its results.

This Committee was first appointed at the Annual Meeting at Toronto in 1911. In view of the difficult and complicated nature of the subject to be dealt with and in view of the probability, as it appeared then, that immediate consideration and action would be necessary without consultation with the membership at large, the Committee was made as large and representative as practicable. It transpired that it was not necessary to act so quickly as at first anticipated, and that ample opportunity was afforded for consultation with the members and the Executive Council, which opportunity was fully taken advantage of and the policies and proposals of the Committee submitted from time to time for approval and authorization. As a result the policies and conclusion that have been formulated have been the result of the most careful study and deliberation that it was possible for the Association to give, subject only to the difficulty that from time to time members who had not kept pace with what was being done in their interest misunderstood the attitude of the Association and as a consequence it was necessary to carry on concurrently with our other work a campaign of information and explanation. While there have been, and no doubt must be, differences of opinion upon some of the phases of the subject we are convinced that the proposals urged and the policies adopted had the support of the great bulk of the membership at large, as evidenced by the fact that these policies and proposals had the unanimous approval at least three times of the Executive Council and of two Annual Meetings; and any doubt which may have existed as to the Committee's attitude being endorsed by the members was conclusively set at rest at the recent convention at Toronto.

Wisely or unwisely an advanced stand was taken upon the subject coupled with a constructive policy of earnest co-operation with the Government and the labor interests in endeavoring to secure for the Province a model system which would represent the best in the systems and the experience of other countries and jurisdictions where the subject had been dealt with. At an early stage in the proceedings a statement of principles was laid down in which it was recommended that the system should provide compensation for every case of industrial accident regardless of negligence; that the compensation should be certain and adequate; that the system should be such as to encourage to the highest possible degree the prevention of accidents; that the obligation to provide compensation should fall not upon the individual employer but upon employers grouped according to industries so as to eliminate

the waste incidental to employers liability insurance; and that the system should be administered by a Government Commission which would adjust all claims and collect the necessary premiums from employers.

It will readily be appreciated, and we can state as an absolute fact, that this statement of principles represented an attitude more advanced than any body of employers had ever taken anywhere in the world in connection with the subject of workmen's compensation, and in fact much more



MR. P. W. ELLIS
P. W. Ellis & Co., Limited, Toronto, Ontario.
Elected Chairman, Workmen's Compensation Committee, 1914-15

advanced than anything the labor interests had in contemplation, but in endeavoring to follow out our policy we were at once met with certain handicaps. We found that the leaders of both political parties had been committed, by speeches made during the last election campaign, in favor of the English Act. We found also ample reason to believe, after the investigation of the Commissioner Sir William Meredith had begun, that he, the Commissioner, had also fully in mind a measure along the lines of the English Act. Moreover, those who appeared on behalf of the workingmen expressed themselves as being entirely in favor of the English Act as a whole, suggesting only certain modifications of the amounts of benefits to correspond with the larger wage scale in this country. We, on our part had become fully convinced after entering upon our study of the question that a measure such as the English Act would be found unsatisfactory, even as a temporary expedient, both to workmen and to employers and would be likely to keep both in a constant ferment of agitation and contest for years to come, and that ultimately an entirely different system would, judging not only from logic but from the experience of other countries, have to be adopted. We calculated also from a thorough study of the results of other systems that a measure such as the English Act would be very much more expensive to employers than the kind of system which we believed ultimately inevitable.

The first great task which your Committee had to undertake consisted in convincing the Government Commissioner of the soundness of the conclusions we had reached. In this task we were met with the frankly expressed skepticism and even hostility of the Commissioner who, throughout his investigation covering intermittently a period of three years, has maintained an attitude towards the Association which we are bound to say was not only extremely embarrassing and altogether unwarranted, but was calculated constantly to place our Association and its proposals in an unfair light before those who were not acquainted with the real circumstances. Notwithstanding this, such was the strength of the case made out in support of our views, that the Commissioner in his first Interim Report announced himself, with some hesitation, as being prepared to recommend a system such as we advocated, namely, a system of collective insurance administered by the State.

We had urged that the saving under a system of this kind would be such as either to enable the employer to provide the necessary insurance at less cost than in England and the other provinces of Canada in which Acts similar to the English Act had been adopted, or that it would be possible to pay a larger scale of benefits. It was not unfair to assume that a middle course would be adopted dividing the advantage of the State system as between employer and workman. It was assumed as a matter of course that the schedules of compensation would be such as had been found in other jurisdictions to be fair and not unduly burdensome and that the province would observe the ordinary precaution of beginning with a modest system subject to expansion as experience developed.

The Commissioner was appointed on the 30th June, 1910, and on the 29th March, 1912, he issued his first Interim Report to the Legislature, then in session, not having drafted a bill outlining any plan for carrying the proposal into effect. On the resumption of the investigation after the Legislative session your Committee found on its hands a still more difficult task than before in endeavoring to have proposals approved by the Commissioner in elementary form worked out in practical detail. This task was complicated by two serious factors: First, the entrance of strenuous opposition by the casualty underwriters to the elements of our proposition, and second, the frankly expressed indisposition of the Commissioner to enter upon a study of the practical details.

The greater part of the sittings of the Commissioner held during the ensuing year were spent in a defence by us of the elements of our proposal against the attacks of the casualty companies and railroads in which contest we were successful. We found, however, that no serious effort was being made to put our proposals in concrete form for consideration and discussion, the Commissioner having in mind the preparation of a "skeleton Act" which would embody the principles, leaving the details to be worked out by an administering Baord. This proposal, plausible enough on its face, we knew to be entirely impracticable as there were a multitude of questions which would necessarily have to be determined by the Act itself, and moreover it was entirely contrary to our views that an administering Board should be vested with such powers as were implied and necessary in working out the Commissioner's idea. We were convinced also that when the Commissioner set to work to draw the skeleton Act he would find it impossible and would be compelled to proceed to frame specific provisions prescribing various features of the system. In this we were entirely correct as subsequent events proved. Our apprehensions, however, carried us to the length of framing ourselves a draft bill modelled upon the only other system then in existence on the Continent of the kind we had proposed, namely, that of the State of Washington. We had had the operation of the Washington system and the somewhat similar system of the State of Ohio studied on the ground and had brought officials connected with these systems before the Commissioner. And we here note, by the way, that practically all the constructive material by way of evidence and otherwise brought before the Commissioner during the course of his investigations was brought at the instance of, and at the expense of, this Association. The Commissioner himself had asked our representative to prepare and submit schedules

of classification of industries and schedules of proposed benefits to workmen. These were unintelligible without reference to other phases of our proposal, which had been embodied in our draft bill and at the Commissioner's request the draft bill itself was handed in without prejudice.

This was practically the end of the Commissioner's investigation. A few months later it was announced that a draft bill had been prepared and would be produced in public for discussion. When the bill came down we found that it consisted of provisions taken from our draft bill verbatim, or with slight verbal alterations, constituting perhaps one-third of the bill. With these provisions were incorporated sections taken from the English Act (which is based on an entirely different and incompatible principle) constituting the bulk of the remainder. The portions taken from our draft bill had been employed in such a manner as to indicate an entire misconception of their intention and use, and the remaining provisions of the bill were in many respects so illogical and absurd that after one day's discussion the bill was withdrawn and nothing more done until the close of the Legislative session, that is to say, on the 1st April, 1913, when a second Interim Report of the Commissioner was brought in consisting of a draft bill based upon the former bill but with radical alterations made as the result of our criticisms.

It required only a brief examination to show that the second draft was again radically defective and the legislative session being almost over, the bill, instead of being considered and adopted by the Legislature, was left over for the next session. As soon as the new bill was published we requested the Government, through the Hon. Mr. I. B. Lucas, to furnish us with a sufficient number of copies to forward to our members. We indicated naturally that we considered the bill very defective and proposed to call the attention of our members to the defects. Our request was met with the statement that while the draft bill might be regarded as a working basis the Government proposed to go thoroughly into the matter with a view to remedying certain defects which were apparent and others which a further examination might reveal. It will be recalled that the Premier made the announcement in the House that while the Government considered that the work of the Commissioner represented a great advance the Government would gather still further information before bringing in a bill. We were assured by the Hon. Mr. Lucas, then acting Provincial Treasurer, that after the close of the legislative session the subject would be carefully taken up by the Cabinet and that we would be called in consultation.

It was not due to any suggestion from us that the bill was held over. We expressed ourselves as being ready then to assist the Government in putting the bill into proper shape to be adopted before the close of the legislative session or at a special session. We made it clear also that while the schedules of payments and other portions of the bill which might assume the form of an issue between workingmen and employers were as extraordinary and unreasonable as other features of the bill we were prepared to leave these features for adjustment and compromise on a reasonable basis. We were concerned, moreover, as much, if not more, with those features of the bill prescribing the administrative machinery and process and the general conduct of the system from such standpoints as that of insurance. When it is considered that the proposal involves not only a heavy pecuniary burden upon employers but a Province-wide system of State accident insurance coupled with a new and untried scheme of special taxation, it will be seen that in these later and other phases the system, if not properly organized and conducted, will be as potent for harm and injustice, if not more so, as in an unreasonable scale of payments. We were unable to see why the administrative features of the bill, in the proper adjustment of which employers, workmen and the Province have a common interest, should not be placed on a practical working basis representing the experience of other jurisdictions.

The final report was not issued until 31st October. Only three months remained before the Legislative session would open and we expected prompt activity on the part of the Government in accordance with their assurances. In this, however, we were disappointed, and we found after a number of interviews by our legal representative and a sub-committee that the Government had apparently changed its mind and entertained the intention of adopting the bill substantially as proposed by the Commissioner. The Commissioner, in the meantime, had in his final report proposed certain alterations by way of correcting some of the more obvious and glaring anomalies in the bill, but leaving the measure in substance as defective as before. As a result of vigorous protests on behalf of our Committee and a reminder of the assurances which had been given us, a public sitting was announced at which the Hon. I. B. Lucas, and members of the Cabinet would hear objections to the bill. Announcement was made on very short notice but without any organized effort on our part, a very large and representative number of employers appeared for a hearing. Our objections to the bill were formulated in a lengthy memorandum which was laid before the Government, a summary of the objections being read by the Chairman of the Committee. Representatives of other employing bodies also appeared, but at an early stage in the hearing the representations of employers were, at the request of the Chairman Mr. Lucas, postponed and the representatives of organized labor heard in defence of the bill. The speeches of the latter representatives were heard at great and irrelevant length until the late afternoon, effectively shutting out further discussion by employers. The subject had only been opened but no further sittings were held. The meeting had been sufficient, however, to demonstrate to the Government the dissatisfaction of employers with the measure.

The memorandum of objections was immediately published in the form of a running commentary on the bill as it then stood and this was afterwards taken up at several informal meetings with members of the Government with the result that it was agreed that our objections had been largely substantiated and that they would be remedied by having the bill re-drafted. We are in a position to know that the re-drafting had not only been undertaken but had been roughly completed when a sudden change occurred in the disposition of the Government, and we were given to understand that it had been decided again to adopt the bill substantially as it was brought in. Our understanding of the reasons for this change of intention is based upon facts which it is not deemed advisable to discuss; but when the bill was brought down for its first reading a short time afterward it was found that upwards of eighty amendments had been made, practically all by way of following out the original draft. While these amendments were evidently drawn with an eye to our published criticisms they were marked by the same lack of practical grasp as the original draft, and while they evinced a desire to remove anomalies which had been pointed out the effect was in many cases to push them to their logical and still more anomalous and impracticable conclusions. The bill remained substantially as absurd and anomalous as it was before and exhibited the same misconception of the practical business phases of the undertaking. At the same time it was grotesquely unjust and oppressive in proposing to impose upon employers in this Province scales of payments greatly in excess of any system in the world. We do not propose adverting to special features of the bill in this report. Some are still so extraordinary as to be apparent at a glance. Most, however, require a more careful study of the bill before they are apparent. Until a few weeks ago we could not bring ourselves to believe that serious-minded men would consider some of the phases of the bill except to amend them.

It was not until we saw on the second reading of the bill two-thirds of its provisions adopted at an evening session of the House with a bare quorum present that we thought it necessary to call a general convention of the Ontario members. At this convention, after a discussion for a day and a half of the principal features of the Act resolutions to the number of thirteen were drawn up for submission both to the Government and to the Opposition. These resolutions were placed in the hands of special delegations for submission and a Committee of Ways and Means, consisting of the Workmen's Compensation Committee with the addition of thirteen other members of the convention was appointed "to secure action by the Government in the matters decided upon at this meeting, with full power to voice the attitude of the Association in the event of the wishes of the meeting not being acted on and to take what action seems necessary." The representations of the Committee to the Government and the Opposition were favorably received. To those resolutions involving contentious matters no definite reply was given, but to the greater number of those dealing with non-contentious matters satisfactory assurances were received. We regret to say, and we deem it wise to say it without elaboration or further comment, that in respect to the contentious matters no concession was made and that the more important non-contentious alterations which had been agreed upon are also omitted from the bill as finally passed.

The bill is now law for the Province of Ontario. It represents in a highly imperfect and immensely complicated form a scheme proposed by this Association and adopted ostensibly because proposed by us. It is impossible to assign a satisfactory reason why the bill should have been adopted in the form that it was. The excuse given is that it will in any case require constant amendment and that the necessary changes can be made from time to time. As a matter of fact, the possibility of amending the Act during the first year of its operation is the only thing that saves it from being entirely unworkable.

Defective as the Act is your Committee feel that nothing is to be gained by an attitude of resentment and obstruction. On the other hand a good deal may be gained by a policy of earnest co-operation in endeavoring to overcome its deficiencies.

The provisions respecting the formation of voluntary accident prevention association affords an avenue by which employers may assist not only in the prevention of accidents and consequent reduction of premium rates but also in working out many of the difficult administrative problems in regard to which the administering Board will doubtless be guided to a considerable extent by the wishes of those who bear the expense. The provisions respecting these accident prevention associations were introduced in the Act solely at the instance of this Association and it is worth noting that these provisions are receiving favorable comment throughout the United States and they have already been copied in the legislation of two of the States. A very large field of activity is open to the Association in initiating the organization of these associations and it is one of the questions which the Committee suggest should be considered by the Annual Meeting whether and to what extent this field of activity should be cultivated.

In the meantime the Committee have instructed Mr. Wegenast to visit Germany and to gather information with respect to the organization and operation of employers' associations under the system of that country.

It is suggested that the question should be considered by the Annual Meeting whether the special Committee which has dealt with the subject of workmen's compensation should be continued in office, or whether the work should be assigned to the Legislation Committee, or a new Standing Committee appointed for the sole purpose of dealing with workmen's compensation. It has also been suggested that a Standing Committee might be appointed consisting of three or four members from each of the provinces who in their respective provinces would constitute sub-committees for dealing with the subject locally.

While the situation in Ontario has been the chief concern of your Committee note has been taken of developments in other provinces. In Quebec a provision was included in the Act to make it clear that persons not coming within the scope of the Act should have their full right of action under the common law. A proposal to include lumbering employees under the Act was opposed and rejected.

In Nova Scotia the Governor-in-Council has been authorized to appoint a Commission of three or four members to examine into and report as to the laws in force in the Province relating to the liability of employers to make compensation to their employees for injuries received in the course of their employment.

In Manitoba the Compensation Act was a prominent matter up for discussion and consideration during the year. At the suggestion of the Government the question was considered by a Committee of delegates from the Trades and Labor Council, the Canadian Manufacturers Association and the Builders' Exchange, who discussed the Act as a whole with a view to arranging a basis that would be fair and equitable. A few amendments were recommended and ultimately adopted but it was felt that it would be better to wait and profit from the findings of the Ontario Government who were investigating the question before recommending a new Act for Manitoba.

In New Brunswick and British Columbia legislation was also introduced to increase the existing scale of compensation benefits. The Committee has endeavored to keep in touch with the Association's Branches in these provinces and has supported the general tendency to await developments in Ontario.

There is every reason to anticipate general activity in this subject in the other provinces during the next few years. It is possible that there will be an agitation before the adoption of a law along the lines of the Ontario Act. It will probably be found necessary in the interest of the members of the Association throughout all the provinces to keep closely in touch with developments from time to time. The subject is not only of direct importance to employers in its financial aspects but is perhaps of still more importance indirectly in its economic and sentimental effects. It is quite possible that accidents may suggest other forms of State insurance which the adoption of a system of State insurance against industrial may or may not be regarded as desirable from the standpoint of employers.

With this report the immediate task of your Special Committee is concluded. It has not always been a pleasant task. Frequently our attitude has been misunderstood not only by the Government's Commissioner but by the general public. The subject of workmen's compensation is from its nature, involving as it does, economic, social, actuarial and legal technicalities, an unusually difficult one. In this light the misunderstandings and misrepresentations which your Committee have so often encountered in their advocacy for legislation of a secure and permanent character—for as manufacturers

we before all things desire security and permanency—can to a certain extent be accounted for. We did not allow criticism to deviate us from what we believed to be the true and only path to satisfactory legislation. On the contrary possibly these criticisms have by forcing us to scrutinize every detail of our own proposition for defects made us realize the deficiencies and feel all the more keenly the enactment of an Act which we knew to be unsatisfactory, and adverse in many respects, to the best interests of the community.

All of which is respectfully submitted.

P. W. Ellis, *Chairman.* F. W. Wegenast, *Secretary.*

G. M. Murray, *General Secretary.*

NOTE.—*This Report was adopted.*

TRANSPORTATION

WE submit herewith the report of the Transportation Committee for the past fiscal year:

It contains only a summary of matters of general interest, but is probably sufficiently comprehensive to show the activities of this branch of the Association's work and the extent of the service being rendered to the membership at large.

Transportation changes are constantly being made in rates, freight classification and conditions of carriage. Very many problems, concerning the settlement of which the Department is consulted, arise and are dealt with as promptly as possible, but many such favorable settlements escape the notice of members and cannot be included in a brief report.

Transportation Report.

The following matters came before your Committee and the Department during the past year:—

C—*Cartage Service*—

1. Increase in rates.
2. Continuance of the service by the railways east of Port Arthur.
3. Customs cartage charges from examining warehouses (import traffic).

Complaints—Delays to freight in transit and in terminals.

Car Supply.

Car Service Rules—(Revision).

Claims—

1. For overcharge.
2. For pilferage and for loss and damage in transit.

D—*Demurrage*—

1. Average plan.
2. Reciprocal or penalties for delays in transit or at terminals.

Dunnage—Allowances for, on articles requiring such.

E—*Express*—

1. Classification.
2. Conditions of carriage.
3. Coops for live poultry.
4. Delivery limits.
5. Revision of merchandise receipt.
6. Rates on silver bullion to London, England.
7. Windshields (refusal of express company to carry same except entirely at owner's risk).

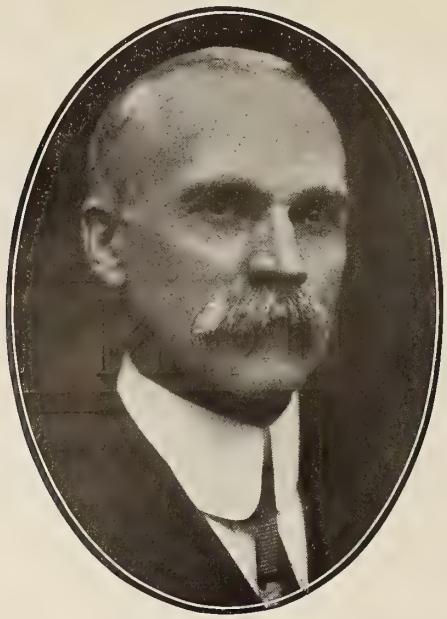
F—*Freight Classification*—

1. Proposed general revision of carload minimum of Canadian Freight Classification.
2. Fixing carload minimum for light and bulky articles upon a cubical instead of a carrying capacity of equipment.
3. Estimated weights for carriages.
4. Revision of Rule 2—Conditions of carriage in mixed carloads.
5. Applications for changes in ratings, etc., in connection with the following: Acetylene gas; apparatus, heating and ventilating; automobiles K. D.; binder twine; boats and canoes; bronze powder; carbon plugs; confectionery and biscuits; cobblers' outfits; conduit or tubing (non-metallic); cork for insulating purposes; copper sash and skylights; cylinders for automobile engines; drums (musical instruments); dry cell batteries; electric motors, excelsior pads; fibre board; fish; glass (cut); grape juice and raspberry vinegar; glycerine; oxygen gas; pail fasteners; peanut butter; plow shares; pneumatic tires; pumps; redi-cut houses; ruber-oid roofing; shoe dressing; signs vitrolite; silo staves; spramotors; spring hinges; stationers' paste; thermos bottles; thresher tanks and gasoline engines; tow; linen and hemp yarns; track tools; transmission machinery; wallboard; water-closet tanks; waterproofing compounds; wheels for sheaf-loaders; window guards and wire gates; wire oven racks.
6. Supplement 3 to Classification 16 proposes changes in the ratings, etc., on the following: Rule 1 (*f*)—A new section to Rule 1, providing that an outage of 2 per cent. must be allowed on shipments of inflammables in tank cars; bakers' machinery; cranes; fertilizers; glycerine; candied peel; dried fruit; canned fish (dry, salted, dessicated, etc.); jams or jellies; mustard; soups (canned); meats (dry, smoked or salted); milk (condensed); table sauces; fruit butter; hogs (dressed); screens (window or door); window screen frames; shirts, collars and cuffs; signs; stoves, furnaces, etc.; undertakers' delivery wagons.
7. Supplement 4 to Classification 16 proposes changes in the ratings, etc., on the following: Barrels, drums or casks (iron or steel); bay rum; brick and tile; cigars and cigarettes; empties returned; furniture stain; hose; mince meat; railway equipment and supplies; tires (pneumatic); sinks-tubs; ventilators; vinegar; silo staves.

Freight Rates—

1. Engines and threshers, mixed carloads.
2. Enquiry into the freight rates in general west of Port Arthur and Fort William.
3. International rates east of Port Arthur and Fort William—5 per cent. advance.

   Essex Terminal Railway.
4. Through joint tariffs.



MR. S. R. PARSONS
The British American Oil Co., Limited, Toronto, Ontario.
Re-elected Chairman, Transportation Committee, 1914-15

5. Lumber from southern United States to points in Eastern Canada.
6. Regina rates case.
7. Vancouver rates case.
8. Lumber from British Columbia mountain territory to Manitoba and Saskatchewan.
9. Pacific Coast class and commodity rates.
10. Ocean rates—export and import.
11. Milling in transit.
12. Brick.
13. Grain rates in the West.
14. Fresh meats and packing house products in mixed carloads.
15. Transcontinental rates.
16. Rates on soda—caustic and bleaching.
17. Rates on pig iron—Fort William to the West.
18. Advance minimum weight on paper and woodpulp.

G—*Good Roads.*

H—*Heated Car Service*—Less than carload shipments of perishable freight.

L—*Live Stock Contract.*
Loading L.C.L. Shipments of fresh meats in refrigerator cars on private sidings.
Limiting Height of Cars.

M—*Milling-in-transit*—
1. New rules covering grain and grain products.
2. Stop-off charge, east of Port Arthur.

Mail Service between Canada and Great Britain.

O—*Ocean Rates.*

P—*Parcel Post*—Inauguration of service.
Pilferages—(Claims for).
Porterage—(Port of Montreal).
Panama Canal.

R—*Railway Act*—Amendment to and revision of.
Railway Equipment—Automobile cars and long flat cars.
Regulations for so-called dangerous articles other than explosives.

S—*Siding Agreements and Installation of Private Sidings.*
Settlement of Claims.
Steamship Service—
1. Between Canadian, Atlantic and Pacific Coast via Panama Canal.
2. Between Eastern Canada and the West Indies; also beyond to South American ports.

Switching—
1. Interswitching—proposed change in Board's order.
2. Local switching—revision of rates.

T—*Telegraph Enquiry*—Rates, contracts and other forms.
Telephone Service—Miscellaneous.
Terminal Facilities—General.

W—*Weighing Carload Traffic*—Allowance from track scale weights.

Freight Rates West of Fort William and Port Arthur including the Complaint of the Vancouver Board of Trade.

The following is a brief statement of the findings of the Board of Railway Commissioners in the many complaints in regard to freight rates in general west of the Great Lakes, including the complaint of the Vancouver Board of Trade in regard to the rates east-bound from Vancouver versus the rates west-bound from Montreal and other points east of the Lakes.

The judgment written by the Chief Commissioner and concurred in by the Board, after setting out at length the history of the complaints, says:—

1. While discrimination exists between the rates charged east and west of Port Arthur the discrimination is justified under the Railway Act and the decisions of the Board; that is to say, it is not an unjust discrimination or undue preference.

2. It is unfortunate that an issue has been made between the East and the West.

3. Rates in the East are governed by water transportation and effective railway competition of American lines.

4. The rates under investigation must be considered with regard to the traffic necessities of Western Canada and a fair return to the carrier. The question for the Board to decide was, "What rates are fair irrespective of how much any company is worth or is not worth."

5. There is no reason why commodity rates should not be granted west of the Great Lakes as and where the proper case is made out requiring special treatment for special commodities.

6. The existing railway mileage in Western Canada is inadequate, at least so far as Saskatchewan and Alberta are concerned.

7. Railway extension is of immediate interest to the distributing centres of the West as every addition to the railway network widens the consuming area.

8. Extensions into new territory should be made at the risk of the company rather than at the expense of shippers on the old lines.

9. As a matter of public policy railway rates should be of such a character as to attract investment and to render the railway securities marketable.

10. The necessity for some governmental control which will prevent unnecessary duplication of facilities (duplication of railway mileage) has been established.

As regards the theory for rate making advanced by the expert employed by counsel for the Dominion Government the Board says:—

"While recognizing the statistical ingenuity of the theory, it must at the same time be recognized that this theory has never had a practical test under such conditions as are present

in this enquiry. There would be many difficulties in applying it, nor can it be said how it would work out. What is needed is a practical working method. With due consideration of all the factors concerned it does not appear how any practical application can in the present instance be made of this theoretical project for a new system of rate making."

The territory west of the Great Lakes has been divided into three sections,—

1. The "Prairie" section extending from the Great Lakes to the Mountains;

2. The "Pacific" section, including mainland rail lines in British Columbia;

3. The "B. C. Lake" section, including the inland navigable waters in that province.

Standard Maximum Freight Rates.

A standard of maximum freight rates has been fixed for each section. The lowest scale in the West, now known as the Manitoba Scale, has been amplified to show rates up to 2,100 miles, and applies throughout the entire "Prairie" section and the B.C. Lake region, abolishing the higher scale now charged in Saskatchewan and Alberta. (The latter is 7½ per cent. higher than the Manitoba scale.) A new scale which will be known as the "Pacific" scale will govern in the "Pacific" territory.

These changes result in substantial reductions from the present standard maximum scales in Saskatchewan, Alberta and British Columbia on traffic moving into, from and between these provinces and locally.

Distributing Tariffs.

Special distributing tariffs must be established as follows:

"From recognized distributing points in 'Prairie' territory west of Fort William to points within that territory the first class rate shall not be more than 85 per cent. of the first class rates in the 'Prairie' standard tariff.

"From recognized mainland distributing centres in British Columbia other than Vancouver and New Westminster to mainland points in 'Pacific' territory all rail or part rail and part inland waters, also from the said distributing centres to points in 'Prairie' territory and vice versa, the first class rates shall not be greater than the first class rates in the 'Pacific' standard tariff less 15 per cent. of the 'Prairie' standard; that is to say the same reduction per 100 lbs. shall be taken off the 'Pacific' standard as is taken off the 'Prairie' standard for similar distances within 'Prairie' territory.

"The above reduction as applied to the 'Pacific' standard is based on the 'Prairie' standard for the reason that the increased charges in British Columbia represent cost only and give no added profit to the carrier."

Through Rates from the East.

Through rates from Eastern to Western Canada are based on those charged from Port Arthur or Fort William.

The special class rates from Port Arthur and Fort William which apply on through traffic from the East specifically so with respect to lake and rail shipments and which are the basis for through all-rail tariffs, differ from the town tariffs ordered in that they have no percentage relationship to the standard maximum mileage tariff.

Special Class Rates from the Head of the Lakes.

The basis fixed for these rates is as follows between Port Arthur, Fort William, Westfort and points west thereof:

(*a*) To and from points east of Winnipeg the "Prairie" territory town tariff basis to be applied subject to the rates to Winnipeg and St. Boniface (*b*) as maxima;

(*b*) To and from Winnipeg and St. Boniface the rates to be no greater than those of the "Prairie" standard tariff for 290 miles;

(*c*) To and from points beyond Winnipeg within "Prairie" territory the maximum first-class rates to be those of the "Prairie standard tariff for the through mileage made up of the actual distance beyond Winnipeg added to the above-mentioned assumed distance of 290 miles east of Winnipeg;

(*d*) To and from points in "Pacific" territory the rates to be scaled west of Canmore and Crow's Nest to the ratio of the "Pacific" standard tariff.

Special Class Rates from Pacific Coast.

The following basis has been fixed for the rates between Vancouver and New Westminster and points east thereof:—

(*a*) To and from points in "Pacific" territory the rates to be readjusted in the same ratio as those prescribed above for Port Arthur.

(*b*) To and from points in "Prairie" territory west of Fort William the maximum first-class rates to be those west of Canmore and Crow's Nest, plus the "Prairie" standard first-class rate difference between the actual mileage west of Canmore and Crow's Nest and the actual through mileage to or from the "Prairie" destination or shipping point as the case may be.

NOTE.—From the first-class rates constructed as above the rates for classes 2 to 10 will be extended in accordance with the scaling of the standard tariff so as to preserve the proportion between the classes.

The following few examples show the reductions made by the order of the Board in the Regina Rate Case and that now ordered:—

From Port Arthur, Fort William and Points East Thereof.

To	Regina Rate Case. Effective April 1st, 1912.							General Complaint, Effective Sept. 1st, 1914.							Total Reduction.						
	1	2	3	4	5	6	10	1	2	3	4	5	6	10	1	2	3	4	5	6	10
Winnipeg	..	..	..	..	..	..	..	1	1	1	..	..	..	..	1	1	1	..	..	..	..
Regina	22	16	15	10	5	8	4	8	7	4	4	3	3	3	30	23	19	14	8	11	7
Moose Jaw	23	20	15	11	5	9	5	6	4	4	2	2	1	1	29	24	19	13	7	10	6
Calgary & Edmonton	20	18	13	9	2	4	3	11	8	7	6	7	5	3	31	26	20	15	9	9	6
Saskatoon	18	15	12	9	5	6	4	11	9	6	5	4	4	3	29	24	18	14	9	10	7
Yorkton	20	18	14	10	9	8	4	8	6	5	3	3	3	2	28	24	19	13	12	11	6
Lethbridge	19	17	14	9	4	6	4	14	12	9	7	6	6	3	33	29	23	16	10	12	7
Nelson	*3	7	18	32	10	12	12	54	44	35	32	25	29	12	51	51	53	64	35	41	24
Revelstoke	..	..	..	..	..	..	..	54	44	35	32	25	29	12	54	44	35	32	25	29	12

*Advance.

The following examples show the reductions in the special class rates from some of the distributing centres—other points being similarly scaled:—

From Winnipeg to—	1	2	3	4	5	6	10
Regina	8	7	6	4	3	2	2
Moose Jaw	7	5	4	3	3	2	1
Medicine Hat	11	9	7	6	5	4	2
Calgary	12	10	7	6	6	4	2
Edmonton	16	13	11	8	8	6	3
Saskatoon	13	11	9	7	6	5	3
Lethbridge	10	9	7	5	5	4	2
From Regina to—							
Aikins, Sask.	4	3	3	2	3	3	2
Medicine Hat	6	6	5	3	3	2	1
Bassano, Alta.	6	5	4	3	2	2	1

There will be similar reductions to stations on the Canadian Northern Railway.

From Saskatoon to—							
North Battleford	3	3	3	2	1	2	1
Watrous, Sask	5	4	3	3	2	2	1
Wainwright, Alta.	8	7	5	4	4	3	2
From Calgary to—							
Swift Current	3	3	1	1	1	1	1
Medicine Hat	3	3	3	2	1	2	1
Revelstoke	1	1	1	..	..	..	..
Fernie	8	7	5	4	3	2	2
Nelson	4	8	13	16	7	*	*

*No rates now in effect.

From Edmonton to—	1	2	3	4	5	6	10
Hardisty, Sask.	13	10	9	6	6	4	3
Camrose, Alta.	6	5	4	3	4	3	2
Wetaskiwin, Alta.	6	4	4	3	3	3	1
Wainwright	3	3	2	2	2	1	..
Lethbridge	9	8	7	6	6	4	5

The present class rates of the Canadian Northern Railway from Edmonton being 15 per cent. less than the so-called Alberta-Saskatchewan scale, the reduction in rates (if any) to points on that line is not as much as to stations on the Canadian Pacific. The latter's rates were established prior to the building of the Canadian Northern and include additional charges for service between Edmonton and Strathcona.

From Nelson to—	1	2	3	4	5	6	10
Sandon	3	2	2	1	2	2	1
Cranbrook	3	2	2	2	2	1	2
Waldo	17	14	12	9	8	7	4

The direction made under this section of the judgment (Distributing Tariffs) is made against the Canadian Pacific Railway alone. To quote:—

"While it is beyond all question that, speaking generally, the rates ordered on one line control to a large extent the rates on other lines, and that it serves no useful purpose to prescribe rates only as against one carrier with the idea of assisting another; yet in so far as these distributing tariffs are concerned, in some instances the mileages of the Grand Trunk Pacific and the Canadian Northern are shorter than those of the Canadian Pacific; to the extent that these shorter mileages would enable either company to charge a lesser rate than that fixed for the Canadian Pacific, I am of the opinion that both companies should have the opportunities of doing business, if they so desire, at the longer mileage rates, and without regard to the competitive advantage which their shorter mileage would give them. These distributing rates, therefore, are made effective by this judgment only as against the Canadian Pacific."

From Vancouver to—	1	2	3	4	5	6	10
Yale, B.C.	1	1	1	1	..	..	..
Ashcroft	14	12	9	7	6	5	3
Revelstoke	26	23	18	13	12	10	6
Golden	18	14	12	9	8	6	4
Calgary, Alta.	7	6	4	3	3	4	4
Medicine Hat	6	3	2	2	2	..	..
Edmonton	9	7	5	4	4	1	1
Penticton	27	24	19	13	11	10	6
Nelson	15	12	10	7	6	5	3
Fernie	21	18	15	10	10	7	5

Commodity Rates.

The local grain and flour rates are reduced by two methods: (1) By direct reduction from 20 to 30 per cent.; and (2) By making the terminal Fort William rates the maximum which may be charged between intermediate stations.

The rate from Broadview to Winnipeg, now 20 cents, becomes 15 cents per 100 lbs., and from Calgary to Winnipeg, now 43 cents, through the application of the Fort William rate as maximum becomes 24 cents per 100 lbs. The westbound rates on flour and other grain products are similarly reduced.

Coal rates from Lethbridge and other Alberta mines have been substantially lowered; for example, the rate from Lethbridge to Calgary is reduced 35 cents per ton; to Edmonton, 65 cents; to Swift Current, 50 cents; to Regina, 45 cents; to Virden, 70 cents; to Saskatoon, 65 cents. The reduction from Lethbridge will necessarily affect the rates from other coal points in Alberta.

Reductions have been made on sugar in carloads from Raymond, Alberta, to "Prairie" points.

The special mileage rates on butter, cheese and eggs, dressed meats and dressed poultry between all "Prairie" points have been reduced.

The special mileage tariffs on vegetables in Saskatchewan and Alberta have been reduced to the Manitoba basis, the latter having been found to be reasonable.

No further change will be made in the special rates on fruits and vegetables from British Columbia, which were revised and reduced some time ago.

The rates on cement from the plants in Alberta and Saskatchewan are to be reduced to the Winnipeg scale, which on the whole compares favorably with the rates in Eastern Canada.

A revision has been made of the rates on lumber and joiner's work from British Columbia to "Prairie" destinations.

No change has been made in the rates on sugar from Vancouver, the complaint of the British Columbia Sugar Refining Company not being sustained.

Rates on live stock will remain as at present. It is stated that they are reasonable in view of the favorable carload minimum weights and the volume of traffic.

Rates on fence posts, fire wood, brick, stone, gravel and sand in Alberta and Saskatchewan have been reduced to the lower Manitoba basis. The latter are found to be generally lower than those applying in Ontario.

"Rates on ores, concentrates and smelter products in and from British Columbia are found to constitute a large percentage of the traffic of that province, and are found remunerative only in the sense of contributing to the general prosperity."

The rate on pig iron from Port Arthur and Fort William has been reduced from 20 cents per 100 lbs. to $3.00 per gross ton.

Local Passenger Rates, British Columbia.

As regards the complaints from British Columbia in respect to the local passenger rates, it is declared that the local passenger business is at present being conducted at a loss. It is, therefore, felt that there is no justification for directing any change now.

The whole structure of Western rates, including the class tariffs from Lake Superior and Pacific Coast terminals, the class distributing rates, commodity tariffs, etc., has been revised, and as will be seen, a comprehensive basis of tolls established.

The C. M. A. Statement.

At the conclusion of the hearings in this matter the Manager of the Department, who attended the different sittings, was authorized to file the following statement on behalf of the Association:—

"In view of the fact that the evidence in this case is of the most comprehensive character and covers the interests of all parties represented, it is unnecessary for the Canadian Manufacturers Association to state its views, except in the most general way, as follows:—

"1. We believe that all freight rates should bear as lightly as possible upon the producer, and this especially because of the fact that all the country west of the Great Lakes is so situated geographically, that of necessity there is a very long haul to the seaboard, and onward to the markets of the world. To give our farmers and other producers all that they are fairly entitled to means that their products must be carried at as low a charge as is consistent with the cost of the service.

"2. In order that manufacturers may be encouraged to locate in increasing numbers throughout the West, which is so obviously to the advantage of the producer of farm and other products, and which contributes so materially to the building up of centres of population, we believe that raw materials should likewise be carried at as low a charge as is consistent with the cost of the service. This it will readily be seen is in the interests of the railways and of the country generally.

"3. The railways must receive a reasonable return on the capital which they have actually invested. To compel them to carry the traffic at unremunerative rates would not only be unjust, but would immediately place an effectual check upon the extension of rail transportation, which the people at large are so anxious to encourage.

"In a word, therefore, we would be glad if your Board, having due regard to all the circumstances, and considering carefully the interests of all concerned, would readjust rates in a way that would conserve and promote the welfare of the Western producer, and carry that readjustment just as far as it would seem practicable to carry it, consistent with the axiom that *bona fide* capital investment must always be afforded a reasonable return."

The summary of the judgment herein given indicates that the views expressed on the subject on behalf of the Association have received consideration.

Cartage Service.

As is generally known, the railways announced definitely that they would not continue their cartage service in the East on and after January 1, 1914. Your Committee is pleased to report that after lengthy negotiations an agreement was come to whereby the service is to be continued indefinitely under the following conditions:—

The Montreal general rate has been advanced from 3 to 4 cents, and Toronto from 3 to 3¼ cents per 100 lbs. At all other points where cartage is performed the rate remains the same as formerly.

A number of articles have been added to the list of exceptions. Whilst no agreement has been come to in regard to the cartage charges on such shipments, which chiefly consist of light and bulky goods, arrangements have been made with the railways to bill forward the cartage charges and collect at destination, thus placing the shippers of such goods



MR. J. E. WALSH
Manager, Transportation Department, C.M.A.

in respect to the billing forward of charges, in the same position as shippers covered by the regular tariffs.

The service in the West is, we believe, satisfactory, with the exception of Prince Albert. It is expected that the difficulties at that point will be overcome.

Freight Classification.

The index indicates the extent to which changes are being made in the freight classification. The Railway Act provides that:—

"No goods shall be removed from a lower to a higher class until such notice as the Board determines has been given in the *Canada Gazette*."

The Department is furnished by the Board of Railway Commissioners with all changes filed by the railways and interested members are immediately notified so that they may take such action as is considered necessary. When it is realized that the removal of an article from a lower to a higher class may mean an increase in freight charges of anywhere from 10 to 50 per cent., this branch of the Association's activities will be appreciated. Without such an organization shippers would have to subscribe to the *Canada Gazette* in order to be kept advised of these changes, and it would be difficult even then to determine the effects.

As indicating to what extent the members are being advised, there were over 1,500 communications sent out from the Department during the past eight months.

Memo re Classification.

Notwithstanding the advices that are sent to members from time to time of changes, it is frequently found that no attention is paid thereto, even in very important cases. Especially is this the case when the advice is in the

form of a circular. It can hardly be expected that the Department will be able to handle these matters satisfactorily unless members will see that the information asked for is furnished.

Every member who ships freight should have a copy of the freight classification in his possession, first, to enable him to describe properly his goods when offered for transportation; second, to check the freight charges demanded of him; and third, to guard against misdescription. The Railway Act provides a heavy penalty for false billing, false classification, false report of weight, etc.

Freight Claims.

Action has been taken to secure more prompt settlement of claims for pilferage and loss and damage in transit, as also for overcharge, and it is believed that there has been a decided improvement.

As regards overcharges, the railways have been asked to exercise the same care in checking their billing for overcharges as they do in regard to undercharges and make prompt refund to shippers or consignees.

The charging of tolls in excess of those called for in the classifications and tariffs of the carriers for the service performed is illegal, and whether quoted in error or otherwise should be immediately refunded. The Interstate Commerce Commission says:—

"It is the plain duty of the carriers to collect no more than the published rate; to do otherwise is a crime for which indictment will lie, and for which there is serious punishment provided in the law against both the carrier and its agent."

The revised Railway Act carries a section giving the Board of Railway Commissioners power to direct that interest will be charged under such circumstances. As the Board has stated that it has not now the power to require the payment of interest on overcharge claims, shippers have a remedy in their own hands; that is to give notice to the railways when filing such claims that in making settlement they must add interest from the date of the improper collection.

Whilst it is believed that steps will be taken by the railways at an early date to bring about improvements in the direction mentioned, it is the plain duty of all those who pay freight charges to check their freight bills. Some of the large manufacturers do this, having departments for that purpose. Others do not exercise the same care, under the belief that the matter is too technical and requires expert knowledge; in fact they have turned over this important matter of their accounting to audit bureaus, which have recently come into existence. Whilst some knowledge is necessary it can be easily acquired, especially when the industry is limited. There is not much difficulty in securing the proper classification ratings. With this information and the current tariffs, procurable from the carriers, it is not difficult to determine the correctness of the bills when rendered.

It is the opinion of your Committee that if some attention were given to this matter on the part of all concerned, a very large saving would be affected. It, therefore, recommends to the members as a whole action in the direction mentioned. The incoming Committee will, no doubt, continue to urge the carriers that instructions be given to agents to check all way bills both as to classification and rates, and collect only the proper charges.

New Freight Bill.

In this connection a new form of freight bill has been adopted in the United States which, it is believed, will remove much of the confusion now existing, and will minimize the irregularities and injustices which now prevail. One of the large Canadian roads has already adopted the new form, and it is expected the others will follow suit.

As regards claims in general, the Department handled during the past year claims amounting to $16,677.20. Of this amount, $9,380.46 was paid, and the balance is in a fair way to settlement.

The Department does not handle anything but claims which have been long outstanding, or claims with merit which have been refused.

Demurrage.

Our application to the Board of Railway Commissioners for the average demurrage plan has not yet been disposed of. The same also applies to Reciprocal Demurrage.

Allowances for Dunnage and from Track Scale Weights.

This matter is still in the hands of the Board of Railway Commissioners.

Express Matters.

A number of minor changes has been made during the past year in the classification after agreement when necessary between the shippers and the companies.

International rates: proposed five per cent. advance.

This is a matter which has engaged the attention of your Committee throughout the year.

On receipt of the notice of the proposed advance the Canadian Board of Railway Commissioners was asked to take such action as might be considered necessary to protect Canadian interests. This had special reference to the rates on raw materials.

Before the Interstate Commerce Commission.

Later the Manager of the Department appeared before the Interstate Commerce Commission at Washington in opposition to the proposed advance in bituminous coal rates.

Some time after the preliminary hearings the I. C. Commission considered it advisable to go into such questions as trap or ferry car service (loading less than carload freight on private sidings), spotting cars on private sidings or industrial tracks, free store door delivery, free elevation, reconsigning and diversion in transit, remission of demurrage charges, etc. It was stated that all such services were of special value to such shippers as were in a position to enjoy them, but their cost constituted a heavy drain upon the carriers, and that it was not fair that these free services should be continued without cost, especially as they were enjoyed by a relatively small number of shippers.

Later a number of other matters were added. The suggestion that a charge should be made for the spotting of cars on private sidings met with such strong opposition that it was abandoned for the time being and the main issue dealt with

The Closing Argument.

The conclusions of Mr. L. D. Brandeis, retained as special counsel of the Commission in the case, are as follows:—

The net returns of the Eastern railways are now moderate; those of the Central Freight Association territory have been and are entirely inadequate, and the tendency of net reductions is downward. Some of the Eastern roads, especially the anthracite carrying lines, do not need higher rates, but the figures clearly demonstrate that most of the railways involved in the case do need them. While conceding this he opposed the so-called "horizontal" increase of 5 per cent. on various grounds: e.g., claim that the railways dissipate their revenues by rendering many terminal services free and by paying shippers for rendering same services.

The compensation paid by the Government for carrying the mails is considered inadequate. Passenger business con-

tributes practically nothing to net earnings. He suggests an increase there rather than to advance freight rates.

In Central Freight Association territory the railways have failed to sustain the burden of justifying the proposed increase.

Your Committee deems it advisable to call attention to these various matters because our rate structures are more or less involved. Any action taken on the other side influences in a more or less degree conditions, especially in Eastern Canada.

Rates on Lumber from Southern States to Eastern Canada.

As previously reported, the increased rates proposed were, after two lengthy hearings before the Interstate Commerce Commission, withdrawn. A new basis has been submitted which is much more favorable, and it is expected that it will be put into effect at an early date.

Ocean Rates—Atlantic.

This question has received very careful consideration on the part of your Committee during the past year. It was asked to endorse the following resolution, passed by the Ontario Associated Boards of Trade:—

"*Resolved*, That the Ontario Associated Boards of Trade strongly urge the Government, in view of the report of the Government Commissioner, the Honorable H. L. Drayton, showing that an Ocean Freight Rate Combine exists, which has the power to make such rates as will 'extinguish the traffic'; to take steps to immediately establish a Government line of ocean freight steamers or to take such other means as will prove immediately effective in relieving the producer and consumer from the exactions of the Ocean Freight Rate Combine."

After careful consideration both by your Committee and the Executive Council it was not felt that the Association could lend itself to the resolution in the form in which it was presented. The Association placed itself on record in this matter over a year ago in the form of the following resolution:—

"*Resolved*, That the Canadian Manufacturers Association urge upon the Government the immediate appointment of a Commission for the purpose of investigating the excessive increases in ocean rates, both import and export, and that action be taken looking towards an international conference composed of representatives from all maritime nations concerned with a view to establishing a permanent Commission with power to enquire into such matters and determine what action is necessary to overcome the combinations and arrangements between steamship lines to enhance rates unduly, which apparently now exist."

Since then the Government appointed Mr. H. L. Drayton, Chairman of the Board of Railway Commissioners, to make a report, which has been done. This report is now before the Government, and, we are advised, has been turned over to the Dominions Royal Commission to be dealt with at the sittings which will be held in Canada during the coming summer, and at which the Association has been asked to present its views.

Parcel Post Service.

Your Committee is pleased to report that the new parcel post service which the Association has urged for during the past five years has finally been inaugurated.

Parcel post packages up to 11 lbs. are accepted. While the new service does not offer any advantages over the express service where the latter exists, the following statistics will convey some idea of the value of it to the small villager and farmer:—

There are now 14,475 post offices in Canada, of which only 4,786 are on railway lines. There are on the various lines of railways about 5,500 express points, at about fifty per cent. of which agents are located. In sending parcels to the other fifty per cent. the charges must be prepaid. It will thus be seen that 9,100 distributing points have been opened up to the public through this service. There are 373 points in Canada where the express companies give free pick-up and delivery service. The area is restricted, however, in 84 of these places, so that an extra charge is made for delivery outside the limits approved by the Board of Railway Commissioners. The parcel post service now provides free delivery within all centres where the letter carrier delivery is in operation and where there is rural mail delivery. Some 2,300 such routes have already been established.

Live Stock Contract.

As reported to the last Convention, as no agreement was reached with the railways the Board of Railway Commissioners was asked to intervene. So far no judgment has been rendered, although assurances have been received that there will be a decision at an early date.

STEAMSHIP SERVICE.

Between Canadian, Atlantic and Pacific Coast via Panama Canal.

This matter has been considered at various times by your Committee, but they are not yet prepared to make any recommendation.

Between Eastern Canada and the West Indies and South America.

The announcement of the contract between the Royal Mail Steam Packet Company and the Government for a service between Canada and the West Indies commencing on or about November 23rd last, stated that through Bills of Lading would be issued from any Canadian point of shipment to any port in Central or South America which are regular ports of call for any of the steamships employed or controlled by the contractors or other services, and which make regular connections with the service contracted for. It has since been ascertained that the service was confined to the following ports:—

Carupano, Venezuela; Pampartar, Venezuela; Porto Cabella, Venezuela; La Guaira, Venezuela; Savanilla, Columbia; Cartagena, Columbia; Colon, Panama.

As there is not much likelihood of the service being extended further south, your Committee recommends to the Convention the adoption of the following resolution:—

"*Resolved*, That the Government be asked to take early steps to provide a service suitable to the requirements of the trade between Canadian Atlantic ports and South American countries (not now served) both on the Atlantic and Pacific."

It is the opinion of your Committee that with an adequate service there will be very considerable development of Canadian trade with these countries.

Railway Act—Amendments to.

Your Committee is pleased to report that the revised Railway Act now under consideration by a joint committee of the Senate and the House of Commons contains the amendments recommended by this Association.

Switching Service—Interswitching.

The last report of your Committee stated that the railways had decided to disregard the interswitching order in respect to deliveries on team tracks, and that the Board of Railway Commissioners had issued a circular directing the carriers to submit their position in writing on the whole question, both as to practices and rates. They have only recently complied with this direction.

In a recent judgment of the Board it was found that "a switching movement is provided for by tariffs properly issued and filed," and "the companies therefore cannot under the terms of the Railway Act decline traffic properly offered to them under these tariffs and within the terms of the tariffs, as the team tracks are held to be, until proper notice of cancellation has been given."

It is to be regretted that this matter has been allowed to drift for over two years, resulting in a service being denied to the public in respect to team track deliveries, the tariffs which the Board refers to in the judgment above quoted having been in effect during that period and attention having been called thereto by the interested parties.

It is expected that some order will be made by the Board at an early date which will definitely dispose of the question. It will not, however, reimburse those who have suffered through the failure to require compliance with the published tariffs.

Local Switching.

Notwithstanding the fact that the railways did not comply until recently with the directions of the Commission to submit their position in writing on the whole question of switching, they undertook to further increase their local switching rates at some of the points east of Port Arthur. The Commission, on complaint of the Association and others, suspended these tariffs pending consideration of the whole question.

New Milling in Transit Rules on Grain.

The railways submitted to the Commission a new set of rules applicable east of Port Arthur. They were considered so drastic the Commission on complaint suspended them. A meeting has been arranged between the interested parties with the hope of coming to some agreement.

Telegraph Enquiry—Rates and Contract Forms.

Your Committee has reported in this matter to the past two Conventions as follows:—

"This enquiry, although considerably delayed, has been practically concluded, and it is hoped will be disposed of satisfactorily without much further delay."

As far as can be ascertained, the whole question has been in the hands of the Board of Railway Commissioners for some time.

The enquiry arose out of the application of the companies to the Commission in 1910 to approve of the rates and forms used by them. It is to be regretted that there has been so much delay in disposing of this important matter, and your Committee recommends that a resolution be adopted at this Convention urging for an early disposition of same.

Some of the other matters which are still outstanding and which will require the attention of your incoming Committee are: revision of the Railway Act, especially placing the carriers by water under the control of the Railway Commission; steamship service between Canada and Central and South America; ocean rates; revision of freight classification, including carload minimums; revision of Canadian car service rules; live stock contract; switching and interswitching.

All of which is respectfully submitted.

G. M. MURRAY, *Secretary.* S. R. PARSONS, *Chairman.*

J. E. WALSH, *Manager Transportation Department.*

NOTE.—*This Report was adopted, and on motion of Mr. S. R. Parsons, the following statement was appended:*

Revision of Railway Act.

There is a number of very important changes suggested in this revision, some of which will undoubtedly need the support of the Committee when the matter is taken up at the next session. Probably one of the most important clauses is the proposition to place the carriers by water under the control of the Railway Commission. Protests have already been filed against this; in fact the Manager of the Department appeared before the Joint Committee of the Senate and House of Commons and gave some reasons why the legislation should not be enacted. It was particularly pointed out that the lake terminals were largely under the control of the railways and that so long as such conditions were allowed to exist there would not likely be very much development of transportation by water. A brief on the subject will be prepared and filed prior to the next session.



AT last year's annual meeting the discussion on Technical Education centred about the financial recommendations contained in the report of the Royal Commission, and emphasis was laid upon the importance of securing favorable action by the Dominion Government at the earliest possible date.

An unfortunate delay in the issuance of the last two volumes of the report was held to be at least partially accountable for the failure of the Government, up to that time, to make any pronouncement of policy in regard to these recommendations. It was also pointed out that the Government might with some justification demur at giving effect to the findings of a Commission appointed by its predecessors in office, without first receiving some assurance from the Provinces, who were to be the beneficiaries thereunder, that the aid recommended would be acceptable.

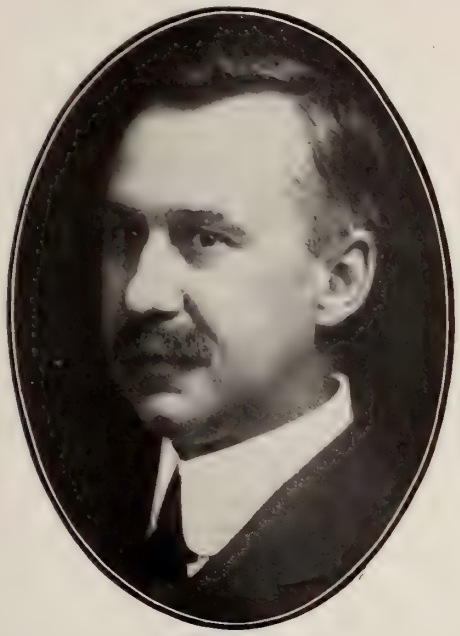
As a means of securing these assurances for the Government, the meeting authorized your Committee to communicate with the various Provincial Premiers, urging the desirability of their placing themselves promptly on record at Ottawa as being entirely in sympathy with what the Commission had proposed.

A conference of Provincial Premiers, called to meet at Ottawa on October 29th, provided the occasion for an opportune letter which was sent out by the Secretary about two weeks in advance. That letter set forth the issue concisely as follows:—

"By direction of the annual meeting of the Canadian Manufacturers Association, I wish to place this organization on record with you, as with the Premiers of all other Provinces of the Dominion, as of the firm belief that the best interests of Canada as a whole will be served by the Government at Ottawa, giving effect, at the earliest possible date, to the recommendations of the Royal Commission on Industrial

Training and Technical Education, in so far as they relate to the question of federal aid.

"By reference to the report in question you will observe



MR. J. S. McKINNON
S. F. McKinnon & Co., Limited, Toronto, Ontario.
Elected Chairman, Education Committee, 1914-15

that the financial recommendations fall under two main headings.

"First, having regard to the importance of elementary drawing, manual training, experimental science and pre-vocational work as foundations upon which a system of technical education should be built up, and until such time as suitable teachers of these subjects are more generally available, the Commission recommend a federal grant of not less than $350,000 a year for ten years, to be divided among the Provinces in proportion to population, each Province to be permitted to draw upon its appropriation after furnishing satisfactory evidence of work done, to the extent of 75 per cent. of its actual outlay on salaries and equipment, but not on buildings.

"Secondly, the Commission recommend a federal parliamentary grant of $3,000,000 a year for ten years for the encouragement of technical instruction adaptable to those who have passed the public school age of fourteen. This money is to be apportioned in a similar manner and administered in a way that should not only encourage local initiative, but that should avoid any criticism on the ground of interference with provincial control. The Commission does not attempt to define what work the Provinces shall do, nor does it even reserve to the Federal Government the right of inspection. It simply recommends that certain moneys be placed annually to the credit of each Province in a ledger account, and upon the presentation of a certificate from the chief educational officer of a province to the effect that his province has done such and such work of such and such a standard, there will be immediately payable to his province 75 per cent. of its actual outlay on salaries and equipment.

"It is but natural to suppose that the Federal Government will hesitate to give effect to these recommendations until they are assured that such action on their part would be welcomed by the Provinces; on the other hand, were the Provinces severally and jointly to place themselves on record with the Ottawa Government as favorable to the recommendations of the Commission, we are hopeful that the necessary legislation will be passed in the near future.

"The forthcoming conference of the Provincial Premiers affords an excellent opportunity for the discussion of this most important subject, and our Association sincerely hope that not only will the desired opportunity for discussion be afforded, but that you will see your way clear to join in a memorial that will pave the way for immediate action."

Replies of an encouraging character were received from the Premiers of Nova Scotia and New Brunswick. The Premier of Saskatchewan took the ground that the rapid growth of population in his Province taxed their financial resources to the utmost in an effort to keep pace with ordinary educational requirements, and that any Federal aid for technical education should not be conditioned upon further expenditures which they could not afford. The other replies were non-committal.

Your Committee regret to report that at the conference in question no action was taken. It appears that the matter was informally discussed, after the adjournment of one of the regular sessions, and that Dr. Robertson, Chairman of the Commission, was heard in support. Differences of opinion, however, arose which were not easy of reconciliation, in consequence of which the whole subject was dropped for the time being, the incompleteness of the report serving as a plausible pretext for delay.

Meanwhile rumor began to reach your committee that members of the Dominion Government were inclined to look askance at the somewhat cumbersome machinery that would be involved in the adoption of the Commission's recommendations. These recommendations, it may be recalled, contemplated the formation of Rural and Urban Development Boards, a Development Conference and a Development Commission for each Province, and a Development Conference and a Development Commission for the Dominion. The thought which prompted the Commission to bring forward such a proposal was that better results would follow from what people did for themselves than from what they had done for them. The success of a big movement like technical education would depend upon the amount of interest and enthusiasm that was



MR. H. H. MASON
Mason & Risch, Limited, Toronto, Ontario.
Retiring Chairman, Education Committee

aroused in its behalf. One of the surest ways to arouse enthusiasm was to give people something to do. The formation of these Development Boards would, it was thought, grip the interest of the leaders in local work in every part of Canada,

and form innumerable small centres from which would radiate influences for lasting good. These centres in turn would receive guidance from the Provincial Conferences, and direct practical help from the Provincial Commissions, who would be similarly served by the Federal bodies in which would presumably be embraced the wisdom and experience of the whole Dominion.

While perhaps not failing to appreciate the force of these suggestions, the Cabinet at Ottawa were reported as favoring the simpler and more direct method of assistance provided for under the Agricultural Aid Act of 1913. Interviews with different members of the Government tended to confirm this impression. No sentiment was encountered hostile to federal encouragement of technical education; on the contrary your Committee were led to believe that the Government were both willing and anxious to do something. It was the manner rather than the matter of doing it that seemed to give concern, for that something substantial would eventually be done appeared to be a foregone conclusion.

At this juncture two things happened that caused your Committee to pause. In the first place word was received from one of the most important Branches of the Association to the effect that federal aid in the form recommended by the Commission would not be satisfactory. Next the Association was asked to father a large deputation to Ottawa for the purpose of urging the Government to give effect to the Commission's recommendations with the least possible delay. Naturally your Committee had no wish to champion a losing cause when they might with equal loyalty to the interests of the Association champion one that held out better prospects of success; still less had they any desire to act contrary to the wishes of an important section of the membership. Meanwhile, having learned that of a certainty the Government would take no action of any kind this year, they decided to withhold further representations pending an opportunity to consult this meeting.

As some information will, no doubt, be desired regarding the provisions of the Agricultural Aid Act, they are briefly explained herewith.

The Act starts out with a preamble citing the desirability of giving encouragement to agriculture in all the provinces of Canada, and the great and permanent benefit that would result through education, instruction and demonstration carried on along lines well devised and of a continuous nature. Similar encouragement for manufacturing industry would apparently be equally desirable and be followed by equally beneficial results to the country at large.

For the purpose of aiding and advancing the farming industry by means of instruction, the Act next provides for an expenditure of ten million dollars over a period of ten years, to be paid out of the Consolidated Revenue Fund. If during any one year the full amount allotted is only partially earned and paid, the balance remaining shall be carried forward and be available for the next or any succeeding year.

Out of each year's appropriation the sum of $20,000 is first to be set apart for assisting veterinary colleges, the basis of division to be in proportion to the number of students enrolled in each case. Next, each Provincial Government is to receive an unconditional grant of $20,000. The balance is to be allotted to the various provinces in proportion to population, the actual payment to be subject in each case to such terms and conditions as shall have been previously agreed upon between the Minister of Agriculture and the Government of the Province.

The Minister is empowered to appoint such officers as may be required for carrying out the provisions of the Act, and for such inspection, examination and report as may be necessary to determine the legitimacy of any claim for a grant brought under the Act.

Under certain circumstances the total estimated amount payable to any Province under the Act may be expended in one year.

Provision is also made for an annual report to Parliament containing a full statement of moneys expended and the purposes to which they have been applied.

The prime essential to the success of a programme of this kind lies in the ability of the Government to command the services of a thoroughly competent, experienced and tactful man as its chief administrative officer. With such a man the whole plan can be worked out simply, directly and effectively. Local initiative can be encouraged where such a policy would appear safe or desirable; on the other hand a strong central organization can be utilized to do things for localities that lack either initiative or the capacity for business management. In Mr. C. C. James the Minister of Agriculture has secured an officer whose record justifies the hope of splendid results; providing a man of similar qualifications were available to administer a Technical Education Aid Act, under the direction of the Minister of Labour, the plan should be susceptible of equally effective treatment.

Reduced to its simplest terms, the whole problem is one of expediency. What this Association is most concerned about is results. We want to see a Dominion-wide scheme of technical education inaugurated, and we want it now. Each year's delay leaves Canada just so much farther behind in the race towards industrial efficiency. As between the two plans of operation your Committee see little to choose, but if one of them is objectionable to certain of our own members, and at the same time presents difficulties, real or imaginary, from a constitutional standpoint, it would seem wise under the circumstances to press for legislation in the other direction, as affording the most feasible basis for immediate action. Should this view meet with the favor of the meeting, an appropriate resolution will be submitted for your adoption at the proper time.

Prizes for Competition Among Students.

Your Committee have given a good deal of consideration to the question of donating prizes for competition among university and technical school students, which came up for discussion last year and in connection with which an appropriation of $1,000 was authorized.

This movement was first started by the Committee in charge of INDUSTRIAL CANADA, for the purpose of encouraging research work. The thought in their minds was that some of the surplus profits of the paper might well be utilized to bring the students in our leading universities more closely in touch with industrial problems, by offering prizes for essays on suitable subjects to be submitted in competition. Incidentally they expected INDUSTRIAL CANADA would be able to secure in this way some good articles on matters of timely interest.

The whole proposal was largely an experiment, and has been recognized by two annual meetings as such, which accounts for the limited number of institutions in which prizes have thus far been offered. The present list comprises the following:—

	1st Prize.	2nd Prize.	3rd Prize.	Total.
Dalhousie University, Halifax	$60	$30	...	$90
McGill University, Montreal	60	30	...	90
University of Toronto	60	30	...	90
Ontario Agricultural Coll., Guelph	50	30	20	100
Macdonald College, Ste. Anne de Bellevue	50	....	...	50
Manitoba Agricultural College, Winnipeg	50	...	...	50
				$470

Laval University was to have been included within this scheme, but owing to a re-arrangement of the curriculum that was in contemplation at that time, the authorities there found themselves unable to take advantage of the prizes offered.

These contests have now been repeated a sufficient number of times to permit of the conclusion that while they are undoubtedly appreciated by the university and college authorities, and stimulate a certain amount of research work and essay writing, they have not been productive of very much that could advantageously be used in INDUSTRIAL CANADA. Your Committee feel, however, that the Association would prefer not to judge of the matter from that standpoint, in consequence of which they would recommend that the present list be allowed to stand, with the addition of a prize of $50 to be donated to the College of Agriculture, Saskatoon.

In surveying the field of technical and industrial schools for the purpose of making a selection of institutions in which to offer prizes for competition, your Committee have been confronted with a most difficult problem. They have had data before them as to the courses of instruction offered in more than a hundred towns and cities, ranging all the way from one or two subjects each to fifty. In some places the instruction given is largely confined to trades or vocations in which the Association is only indirectly interested, such as mining, navigation and agri ılture. These have necessarily been left for other organizations to deal with. On the other hand, certain subjects like English, Mathematics, Drawing, Bookkeeping, Physics, Chemistry and Household Science are common to both technical and high schools, and technical schools that do little more than cover these studies are hardly entitled to our recognition. Your Committee frankly acknowledge their inability to offer any recommendation as to the courses in which prizes should be offered, for the simple reason that conditions in no two places are alike; what would be suitable for one school might be entirely unsuitable for another, and *vice versa*. It is also a foregone conclusion that the Association cannot donate prizes for competition in all schools of real merit because of their number, a difficulty which can only be accentuated as the educational equipment of the country is added to.

Remembering always that this proposal, like the other, is experimental in character, your Committee have selected the list of institutions shown below on which to try it out. They would suggest that the principal be notified in each case that prizes aggregating in value the amount indicated will be offered for a period of three years in such courses and for such work as his judgment would approve, subject to rearrangement each year; the prizes preferably to take the form of reference books bearing the Association's inscription, with an occasional substitution of tools or durable equipment.

NOTE.—*This Report was adopted.*

Nova Scotia—	
Selection by the Director of Technical Education	$50
Quebec—	
Technical School, Montreal	40
Commercial and Technical High School, Montreal	40
Technical School, Quebec	30
Ontario—	
Technical High School, Toronto	50
Industrial, Technical and Art School, Hamilton	40
Industrial and Art School, London	25
Evening Technical and Industrial Classes, Ottawa	25
Industrial School, Brantford	20
Evening Industrial School, Berlin	20
Evening Industrial School, Galt	20
Evening Industrial School, Guelph	20
Manitoba—	
Kelvin Technical School, Winnipeg	40
St. John Technical School, Winnipeg	40
Alberta—	
Technical School, Calgary	30
British Columbia—	
Evening Technical Classes, Vancouver	40
	$530

This will at once satisfy the instruction given at last year's meeting, and will provide a programme of a sufficiently comprehensive character to give the experiment a thorough trial. A larger number of schools could be included, but this would involve either increasing the total appropriation or reducing the amount available for each. The time is hardly opportune for the former; the latter might tend to make the action of the Association look too small. In any event this programme, if adopted, will come up for revision three years hence, by which time our experience will no doubt enable us to deal with the whole situation more intelligently.

Your Committee would add, in conclusion, that while the amounts recommended might in certain cases appear small in comparison with the importance of the institution, they are already being anticipated by donations from individual manufacturers and from the private funds of some of our Branches, a practice which it is hoped will be continued.

All of which is respectfully submitted.

H. H. MASON, *Chairman.* G. M. MURRAY, *Secretary.*

TARIFF

BY way of preface to the Report which your Tariff Committee beg leave to submit herewith, it may be stated that the year has been a very significant one so far as the fiscal policy of Canada is concerned, by reason of the number and importance of the questions that have arisen for consideration. Notwithstanding the defeat of the Reciprocity Agreement in 1911, there has been a renewal of the agitation for a general lowering of the tariff. This agitation could only be construed as an effort to cause the Government to forsake the policy of moderate tariff protection which has made Canada the virile and progressive country it is to-day.

It is a matter of congratulation that the Government has announced itself clearly on this question of protection which is of such moment to us all.

The following were the principal matters considered by your Tariff Committee since our last annual meeting:

Tariff Changes of the Budget.

The tariff changes of the 6th April, 1914, will be found in Appendix "B" attached hereto.

The Finance Minister introduced these changes with a

statement of the Government's adherence to a fiscal policy of reasonable protection to Canadian industries, including the great basic industry of agriculture. He pointed out that the Tariff affords a moderate degree of protection only. Evidence of this is seen in the Underwood Tariff of the United States which was designed to cut down substantially the duties imposed under former tariffs. This Tariff, heralded throughout the United States as a free trade measure, is considered by the best United States authorities to impose an average duty upon dutiable goods of about the same percentage as the Tariff of Canada. On behalf of the Government the Finance Minister affirmed that this policy of moderate protection is the inevitable policy for Canada, because her geographical position and the existing fiscal conditions of other countries make such a policy necessary for the development of our natural resources, for the maintenance of stable commercial business, for the establishment and extension of industries, for fair wages, and for an enlarged and profitable home market for farmers, thus causing healthy and diversified growth in the national life of Canada.

Surtax Provisions.

Your Committee would direct attention to the changes in the surtax provisions of the Tariff Act, as brought down in the new Tariff Bill. Instead of the surtax, if applied, being an inflexible one-third, the present tariff bill provides flexibility, permitting an assessment by way of surtax up to 20% ad valorem, but not exceeding that rate, on imports from countries which discriminate against the imports of Canada. The change also provides specifically for protection by way of surtax where there is discrimination against Canadian shipping.

Iron and Steel.

The principal changes in duties affecting iron and steel are:—

(*a*) The Government is taking power to itself to apply the same Customs Tariff on importations of rolled structural shapes weighing up to 120 lbs. per lineal yard, as now applies to such shapes weighing up to 35 lbs. per lineal yard. This power is to be brought into operation, probably within two years, after Canadian steel rolling mills are built and equipped to roll these heavy structural shapes in substantial quantities according to the needs of the country.

(*b*) Duties of $2.25 British Preferential and $3.50 per ton, General Tariff, are applied to importations of certain wire rods heretofore free.

(*c*) Changes in the drawback regulations to enable a draw back to be paid on pig iron used in articles exported. The wording of this change is as follows:—

"Resolved, that it is expedient to provide that the Governor-in-Council may, under regulations made for the purpose, allow, on the exportation of goods manufactured in Canada and into the manufacture of which pig iron imported into Canada mixed with pig iron made in Canada has entered, a drawback, equal to the duty paid, less such deductions therefrom as is provided in such regulations, on all the pig iron imported and used by the manufacturer of such goods in manufacturing the goods exported and other goods, and the drawback may be computed on the total quantity of pig iron, including pig iron made as aforesaid, entering into such exported goods."

The Minister's explanation of the necessity for this amendment is as follows:—

"When manufacturing the same article for export and for home consumption it is found impracticable to keep the melts of foreign and domestic iron separate, so that only foreign pig iron will be used in the article exported and domestic pig iron in the like article for home consumption; so that a mixture of pig iron occurs in the course of the manufacture of other articles made from pig iron. The proposed amendment is designed to enable drawback to be paid to the extent of the weight of pig iron used in the exported article, but not in excess of the quantity imported and on which duty has been paid. Let me illustrate by a concrete example. A manufacturer of agricultural implements requires, let us say, 30,000 tons of pig iron in respect of his entire business, both home and foreign, during the year. Let us say that his export business is 10,000 tons of product. Now, it was the intention of the section of the Customs Act which I have read, and the regulations made thereunder, that that manufacturer should be able to obtain a drawback in respect of the duties upon the foreign pig iron entering into the 10,000 tons of product exported. Let us further suppose that of the 30,000 tons of pig iron purchased our manufacturer buys 10,000 tons from the United States and 20,000 tons in Canada. They are melted up together, and when he claims his drawback in respect of the 10,000 tons of exported product the Customs officers, under the authority of this statute, are only able to give him a drawback of one-third the duty upon the 10,000 tons of imported foreign pig iron. The reason for that is that the 20,000 tons of domestic pig iron which he had purchased are melted together with the foreign pig iron. The Customs officers say that it cannot be demonstrated that the 10,000 tons of American pig iron went into the 10,000 tons of manufactured product. Therefore, they say, we will not allow you a drawback in respect of the 10,000 tons of pig iron which you have imported from the United States; we must assume that only one-third of that went into the 10,000 tons of exported product; and we shall allow you, therefore, one-third of the duty which you paid on the 10,000 tons. The result is that Canadian manufacturers who manufacture for export have a special inducement to buy all their pig iron from abroad. If the manufacturer whose case I have taken had bought the whole 30,000 tons of pig iron from the United States, no question would have arisen with the Customs officials. He would have been entitled to a drawback in respect of the amount exported. The pig iron industry of Canada has suffered by reason of the inducement which is held out to manufacturers under the drawback regulations to purchase all their requirements in the way of pig iron in the United States. We propose to remedy that."

A similar provision has been made for pig iron used in making mowing machines, reapers, harvesters and binders, viz.:—

"If pig iron imported into Canada mixed with pig iron made in Canada has entered into the manufacture of mowing machines, reapers, harvesters, binders and attachments for binders, the drawback payable in pursuance of this section, under regulations by the Governor-in-Council, may be computed on the total quantity of pig iron, including pig iron made as aforesaid entering into such goods; Provided, however, that the total drawback payable shall not exceed ninety-nine per cent. of the duty paid on all the pig iron imported and used by the manufacturer of such goods in manufacturing such goods and other goods."

Building Stone.

For over two years your Committee have been giving a good deal of thought to the quarrying and stone-cutting industry, with a view to securing for it the measure of protection to which they thought it entitled. In October last, with the approval of the Executive Council, your Committee placed the Association on record with the Government in the following resolution, viz:—

"Whereas, The quarrying and stone-cutting industry of Canada is one which, in view of the country's extensive resources and its widespread and rapid development, should

occupy an important place in our industrial life and enjoy its fair measure of prosperity, and,

"Whereas, There is evidence to show that this industry is unduly depressed, many quarries being closed and those in operation working only part time; and,

"Whereas, This condition would seem to be the result of unfair competition from outside of Canada, due in part to the fact that dressed stone is carried under both United States and Canadian classification at the same rate as undressed stone, and in part to the fact that the tariff on dressed stone is only five per cent. greater than the tariff on undressed stone; and,

"Whereas, It is apparently beyond the power of the Board of Railway Commissioners to afford any relief;

"Be it resolved: That the Executive Council of the Canadian Manufacturers' Association hereby commends the needs of the industry to the early consideration of the Government, coupled with a recommendation that the tariff on stone be revised in an effort to overcome the unequal conditions which now prevail."—Carried.

It is a pleasure to be able to report that, in the new tariff amendments of the 6th April, the quarrying and stone-cutting industry seems to be protected to a degree which will undoubtedly improve its condition.

Wheat Flour.

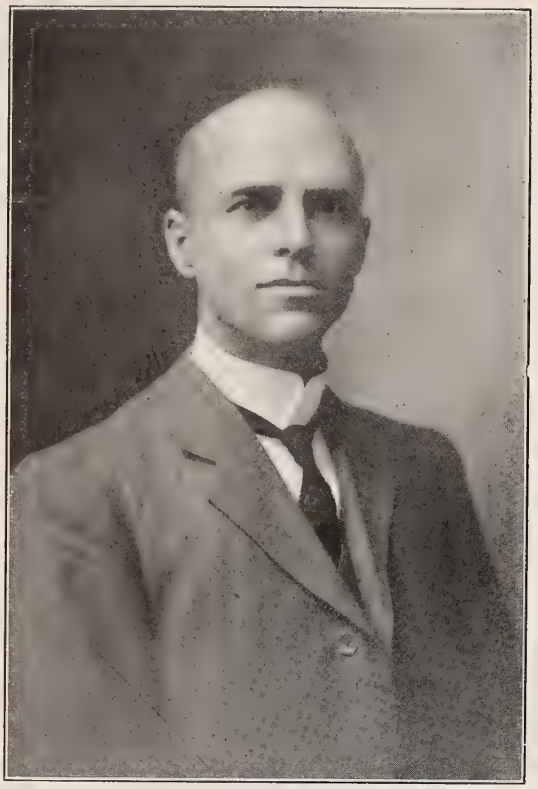
The new United States Tariff provides that wheat, wheat flour, semolina and certain other wheat products may enter the United States free of duty from countries which do not collect duty on wheat, wheat flour and semolina of United States production. This provision in the United States tariff gave rise to an agitation in Canada for reciprocal action; and pressure was brought to bear upon the Government by a section of the agricultural interests in the West, and also by a section of the press, to remove the duties imposed under the tariff of Canada. Such a removal of duties clearly was a matter of far-reaching importance. If acted upon it would in turn have led to an agitation for the removal of the duty on scores of articles used by millers in their processes of manufacture and in marketing their product. Your Committee, therefore, felt it their duty to make an exhaustive study of the subject. The information they were able to obtain, and the conclusions reached, were embodied in a memorandum which was afterwards used as a basis for representations to the Government.

The decision of the Finance Minister on this question as announced in his budget speech is one which your Committee believe was received with very general favor.

Agricultural Implements.

Conspicuous among the tariff changes announced in the budget speech was the cut in the duty on binders, reapers and mowers from 17½ per cent. to 12½ per cent. ad valorem. In view of the extent of the agitation for a reduction, and the tremendous pressure brought to bear upon the Government to remove the duties upon agricultural implements altogether, it would not have been surprising had the reductions been of more serious character than they were, notwithstanding the industrial demoralization which would have resulted. Evidently, however, the Government have reviewed the whole situation with the greatest care. No doubt they have been influenced by the large investment of local as well as of foreign capital, and the immense labor interests employed, in the agricultural implement industry in Canada within the past few years, and have tried to pursue a course which would encourage further investments, while at the same time going as far as practicable in an effort to meet the wishes of the farming classes.

The Finance Minister drew the distinction between the cases of binders, reapers and mowers, and all other agricultural implements, that for home consumption there is a drawback upon iron and steel entering into the manufacture



MR. J. R. K. BRISTOL
Manager Tariff Department, C.M.A.

of these three implements. The lowering of duties on binders, reapers and mowers has resulted in the admission, practically without duty, of iron and steel for the manufacture of these implements. That is the situation since the 1907 tariff came into effect. The result is that this iron and steel is not now being made here. Owing to duties which the steel manufacturer must pay on raw materials and equipment not obtainable in Canada, your Committee would report that, under this tariff, the situation can only be remedied by giving reasonable protection to the manufacturers of binders, reapers and mowers, with cancellation of drawback for home consumption, or by an arrangement for payment of bounty on iron and steel made in Canada for use in the manufacture of binders, reapers and mowers.

Board of Customs Decisions and Departmental Rulings.

The Tariff Department has kept closely in touch with Customs matters at Ottawa, and during the year has been advised of Board of Customs decisions and departmental rulings which will be found in Appendix "A," all of which have received the consideration of your Committee. In many cases the rulings cited have followed representations made by the Association through its Tariff officer. The members of the Association who were affected by these tariff ratings were written to, and in addition full announcements were made from time to time in INDUSTRIAL CANADA.

Valuations.

Since the last annual meeting a large number of cases of importation of goods at export or dump prices have been investigated with satisfactory results. Because of the depressed condition of trade abroad, which induces some foreign

manufacturers to take export orders at or below cost, your Committee desires to again call the attention of the members of this Association to the fact that, under the provisions of the Customs Act, the value for duty of goods imported into Canada is the fair market value thereof as sold for home consumption in the principal markets of the country whence and at the time they are exported directly into Canada. In cases where business is lost to members owing to such unfair competition from other countries, the facts should be reported fully in confidence to the Manager of the Tariff Department, who will give them his personal attention.

Special Customs Investigating Officers.

The great need of correct appraisements for the maintenance of home employment, wage scales, and factory output, particularly in times of business depression, such as exists at present, is apparent to every manufacturer. Unless correct appraisements are made Canadian industries and business generally must suffer. To deal with complaints of importers and manufacturers against fraudulent entries, and questions of "export" or "dump" prices in respect to importations of foreign goods, your Committee desire to report that the Honorable Minister of Customs has enlarged the staff of officers in charge of such work.

Miscellaneous.

Other numerous matters relating to the tariff, some of an industrial character, settlement of claims for refund of duty incorrectly paid, etc., etc., have engaged the attention of your Tariff Department.

The attention of members is called to the fact that your Committee's Tariff Officer is at the disposal of each member of the Association in connection with any Customs matter; and your Committee in closing would strongly recommend the members to consult with the Tariff Department over any Customs difficulty in advance of its submission to the Department of Customs so that no point affecting the application may be overlooked.

G. M. Murray,
Secretary.

H. H. Champ,
Chairman.

J. R. K. Bristol,
Manager, Tariff Department.

APPENDIX "A"

Board of Customs Decisions.

1. Tractor hitches and engine guides, declared to be dutiable under Item 447 in effect from December 5th, 1912. By the provisions of this item the duty payable is at the rate of 15% British Preferential and 20% General Tariff.

2. Metal adapted in form and composition for use as nickel anodes, per sample, declared to be dutiable under Item 358. Under Item 358 the British Preferential Tariff rate is 5% and the General Tariff rate 10% ad valorem.

3. Basic furnace slag, ground, declared to be dutiable under tariff Item 663 in effect from November 9, 1913. The General Tariff rate under this item is 10% and the British Preferential rate is 5% ad valorem.

4. Fire Brick. Declared that fire brick purchased before May 13th, 1913, and entered for duty prior to the 13th July, 1913, shall be dutiable under the regulations in force May 12th, 1913, per Bulletin 266.

5. Declared that suspensory bandages to be rated as such under Item 236 shall consist of a bag or sack attached to a strap or belt used to support the scrotum, in effect 14th October, 1913.

6. Declared that Wyandotte Alkali special, tanners' alkali and Wyandotte Concentrated caustic ash are dutiable under tariff Item 711 at 15% British Preferential and 17½% General Tariff.

7. High-speed twist steel, when costing over 3½c. per lb., declared to be dutiable under tariff Item 386; free under the British Preferential Tariff and 5% ad valorem under the General Tariff.

8. Bicycle tyres imported fitted on bicycles, and being complete parts thereof, and not invoiced separately, are dutiable at the same rate of duty as that collected on the bicycle, under tariff Item 594. Duty 20% British Preferential Tariff and 30% ad valorem, General Tariff; in effect Nov. 19, 1913.

9. Betz dry hot-air apparatus or cabinet, dutiable under tariff Item 454 at 20% British Preferential Tariff and 30% ad valorem General Tariff. This cancels free rulings in Appraisers' Bulletins 327 and 630.

10. Seed display cases of tin, dutiable under tariff Item 344 at 15% under the British Preferential and 25% ad valorem, General Tariff.

11. Twisted paper, for the manufacture of fibre chairs, dutiable under tariff Item 548 at 20% British Preferential and 25% ad valorem, General Tariff. Note.—This is now free under Item 548a of tariff changes of April 6th, Appendix B. to this report.

12. Platinum evaporating dishes ruled free under tariff Item 489.

13. Life insurance literature from Metropolitan Life Insurance Co., viz., "The Intelligencer," and "Standard of Superintendents in ratio of production to appointment," tariff Item 181, duty 22½% British Preferential and 35% General Tariff.

14. Safety casing shoe, as per diagram, free under Item 469.

15. Blatchford's calf meal (stock food) and Bibby's Cream Equivalent (stock food) ruled to be dutiable under Item 711 at 15% British Preferential and 17½% ad valorem, General Tariff.

16. Street railway car bodies, without wheels or axles, or without motors, declared to be dutiable under Item 593, in effect October 1, 1913. By this item the duty payable under the British Preferential Tariff is 20% and under the General Tariff 30% ad valorem.

17. Declared that iron or steel rods, rolled or drawn, not less than 5-16 of an inch in diameter, for the manufacture of chain, shall not be admitted to free entry under Item 720 when further manufactured by being pickled or limed.

18. Vacuum cleaners, with hose and adjustments, declared to be dutiable under tariff Item 519, in effect from February 1, 1914. By Item 519 the duty payable under the British Preferential Tariff is 20% and under the General Tariff 30% ad valorem.

19. "Chromol," per sample, a stuffing used in making chrome leather, compounded of oleic and palmitic acid, declared to be dutiable under tariff Item 711. By this item the duty payable under the British Preferential Tariff is 15% and under the General Tariff 17½% ad valorem.

20. Arterial tubes of metal, adapted for embalmers' use, declared to be free of duty under tariff Item 466.

21. Veneer flooring of oak, dressed on one side, with squared edges ready for laying, declared to be dutiable under Items 505 and 506. By these items the General Tariff rate is 25% ad valorem.

22. Cummer's patent ore dryer ruled to be dutiable under Item 453. By the provisions of this item the duty payable under the British Preferential tariff is 15% and under the General Tariff 27½% ad valorem.

This decision sustains precedents already established by the board, to the effect that under the Customs Tariff of

Canada, 1907, there is no authority for the free entry of ore dryers.

23. Dental switchboards ruled not to be free as "surgical instruments," but to be dutiable as electrical apparatus, under Item 453. By the provisions of this item the duty payable under the British Preferential Tariff is 15% and under the General Tariff 27½% ad valorem.

24. Tweezers declared to be dutiable according to material, and not free as surgical instruments.

25. Aspirin, held to be a proprietary preparation, which, being recognized by the French Codex as officinal, is thus excluded from tariff Item 220, and dutiable under tariff Item 711. By this item the duty payable under the British Preferential Tariff is 15% and under the General Tariff 17½% ad valorem.

Departmental Rulings.

1. Red oil, saponified red oil, oleine and elaine oils, being distilled lard oils (and not containing glycerine, as does the expressed or commercial lard oil), are rated for duty under tariff Item 711, in effect from November 11th, 1913. Duty 15% British Preferential Tariff and 17½% General Tariff.

2. Ground silica or ground silex ruled free of duty under tariff Item 297.

3. Steel derricks, 80 feet high and 20 feet square at base, for rotary deep well drilling, claimed by importer to be free under Item 469, ruled to be dutiable as belonging to a class or kind made in Canada.

4. Cork board, compressed or granulated, ruled to be dutiable under tariff Item 494. Item 494 covers manufactures of cork wood or cork bark, not otherwise provided for. By the provisions of this item the duties payable are 15% British Preferential and 20% General Tariff. Note.—This ruling amended by the tariff changes of April 6th; see Item 494a, Appendix "B" to this report.

5. Sheet wadding, per sample, made from wood pulp fibre, such as is commonly used for padding confectionery boxes, ruled to be dutiable under Item 520; by the provisions of this item the duties payable are 17½% under the British Preferential Tariff and 25% ad valorem under the General Tariff.

9. Leather cut to shape for carriage trimmings, dutiable under Item 613—15% under the British Preferential Tariff and 25% under the General Tariff.

7. Hectograph clay in bulk, representing probably china clay, with glycerine, Item 711. Under this item the duty payable is 15% British Preferential and 17½% General Tariff.

8. Electric heating pads, Item 453, duty 27½% General Tariff. Under the British Preferential Tariff the rate is 15%, and under the French Treaty the rate is 25%.

9. Tunny fish in oil, in tins over 36 ounces each, Item 121. By this item the duty payable under the British Preferential Tariff is 20% and under the General Tariff 35% ad valorem.

10. Paintings in oil, or water colors, or pastels, free under tariff Item 495a, whether framed or not, the frame being regarded as of insignificant value relatively when the paintings, water colors, or pastels are valued at not less than $20 each.

11. Tariff Item 403a provides for free entry of "wire rope for use exclusively for rigging of ships and vessels, under regulations by the Minister of Customs." Wire rope, for use as follows, is held to be dutiable, and is not classed as rigging, viz.:

Wire rope lines to be used as cable.
Wire rope lines for use as tow lines.
Wire rope lines to be used for moving the vessel or for holding the vessel in position.

12. Staude gluing, folding and counting machine, used in making paper cartons, ruled to be dutiable under Item 442 at 10% ad valorem General Tariff.

13. Cementing compound, per sample, representing solid asphaltum, free, Item 584.

14. Fabric representing plain white bobinet in the web, whether fine or coarse mesh, ruled to be dutiable under Item 574. By this item the duty payable under the British Preferential Tariff is 15% and under the General Tariff 25% ad valorem.

15. Transparent window signs, so called, per sample, 15c. per pound, Item 178.

16. Steel pipe balls, so called, used in making lap-welded steel pipe, ruled to be dutiable under Item 453 at 27½% ad valorem, General Tariff.

17. Arab lace, per sample, ruled to be dutiable at 12½% British Preferential and 20% ad valorem, General Tariff, Item 526.

18. Rag pulp ruled to be dutiable at 15% British Preferential and 25% General Tariff, Item 200.

19. Impervite, a concrete waterproofing compound, composed of lime, soap and gum, ruled to be dutiable under Item 711 at 15% British Preferential and 17½% General Tariff.

20. "Basofor," containing over 96% of sulphate of barium, ruled to be free of duty under Item 240.

21. Aluminum plates for auto-fenders ruled to be dutiable under Item 354 at 15% British Preferential and 25% ad valorem, General Tariff.

22. Iridium, native, ruled to be free under Item 329.

23. Machines for cleaning raw fur, as taken from rabbit and hare skins, and machines for feeding such fur into the cleaners, when of a class or kind not made in Canada and imported by manufacturers of fibrous materials (in this case a felt hat manufacturer) for use in their own factories in the manufacture of fibrous materials. Item 468, duty 10% ad valorem.

24. Lace jabots per sample, ruled under Item 575 at 35% ad valorem, General Tariff.

25. Aluminum sheets or plates (aluminum foil) as rolled in the rolling mill, ruled free under Item 353.

26. Grinding rolls (card grinding rolls) of a class or kind not made in Canada, for use on carding machines, ruled to be dutiable under Item 468 at 10% ad valorem.

27. Castings in the rough for turbines, ruled to be dutiable at 25% ad valorem under the French Treaty, ex. 453.

28. Bright cast steel drill rods when costing over 3½c. per lb., ruled to be dutiable under Tariff Item 386, free under the British Preferential Tariff and 5% under the General Tariff.

29. Picker lags, per sample, used in working rags up into shoddy, ruled to be dutiable at 10% under Item 468 when of a class or kind not made in Canada.

30. Anderson's steam traps ruled to be dutiable under Item 453 at 15% British Preferential, and 27½% General Tariff.

31. Petroleum wax tailings ruled under Item 711 at 15% British Preferential and 17½% ad valorem, General Tariff.

32. Dyeing machinery (parts) of a class or kind not made in Canada, for dyeing thread, ruled to be dutiable at 10% under Item 468.

33. Uncut glass bottles imported to be cut, but which were accompanied with cut glass stoppers and invoiced at a price which covered the stoppers and bottles combined. Ruled that the uncut glass bottles imported to be cut may be appraised separately and entered under Item 326 A at the General Tariff rate of 22½% ad valorem.

34. Buckramette, so-called, per sample, for the manufacture of hat and bonnet shapes, free under Item 638.

35. "Kromoid" and "Okoid," per sample for use in making leather, dutiable under Item 224 at 25%, General Tariff. This duty, however, is subject to drawback of 99% under the

provisions of tariff Item 1016 when used in the manufacture of leather.

36. In regard to Spring Wire for the manufacture of mattresses, provided for under Tariff Item 481, it was ruled March 14, 1914, that spring wire to be entitled to entry free of duty under the above item should contain not less than 40% of carbon; and as a general rule should cost 40c. and upwards per hundred pounds above the price of ordinary wire of the same size.

37. Dutiable pictures imported in frames, ruled that the frame is to be appraised separately at its fair market value, in each case, and rated for duty under Item 512. British Preferential rate 20% and General Tariff rate 30% ad valorem.

38. Nulomoline, produced from sugar cane, ruled to be dutiable as follows:—

When liquid, Item 140.
When not liquid, Item 141.

Thus when liquid the duty is 50c. per 100 lbs., General Tariff, and when not liquid the General Tariff rate is 35% ad valorem.

39. Band steel, bevelled or not, No. 14 gauge and thinner, ruled to be dutiable under Item 384. By the provisions of this item the material is free under the British Preferential Tariff and 5% ad valorem under the General Tariff.

40. "Koffio" (uncooked cereal, so-called) from Sleepy Eye Pure Food Co., Minneapolis, ruled to be dutiable under Item 26 as coffee substitute 2c. per lb.

41. "Kayao," a vegetable stearine, ruled to be dutiable under Item 711 at 15% British Preferential Tariff and 17½% ad valorem, General Tariff.

42. Cocoaline, a vegetable stearine, ruled to be dutiable under Item 711.

43. Ordered to amend Bulletin 630, Page 26, "Raffia fibre" by adding the word "natural."

44. Cigar bands and labels (paper), question of prohibition under Item 1209 Schedule "C," ruled said bands and labels may be imported for the present without indication thereon of the country of origin.

45. Special conduit paper per sample rolled in narrow strips ruled to be dutiable at 25% ad valorem, General Tariff, Item 197.

46. Compound, so-called, per sample, for use in the manufacture of conduit ruled free under Item 584 as being "asphaltum solid."

47. Peerless facing sand, so-called, described as a mixture of clay, sand, ground limestone and hematite, ruled under Item 314 at 25% ad valorem, General Tariff.

48. Schiffchenstick machines as illustrated and described, used for embroidering or knitting an ornamental design on plain bobinet fabric in the web, ruled under Item 468 at 10% ad valorem, all tariffs.

49. Rags prepared in balls for making rag carpets, ruled to be dutiable under Item 533 at 7½% under British Preferential Tariff, and 12½% under the General Tariff.

50. Hydro hair dryer extractor ruled to be dutiable under Item 468 at 10% ad valorem all tariffs.

51. Hollow drawn wire of silver, not larger than No. 1 Standard Imperial gauge, ruled to be dutiable under Item 406 at 15% under the British Preferential Tariff and 20% ad valorem General Tariff.

52. Pyroxylin hat braid, flat, not over ¼ inch wide, when imported by manufacturers of hats, for use only in the manufacture of hat bodies, ruled free under Item 753.

53. Shaving machines for use in connection with dictating machines, ruled to be dutiable under Item 453 at 15%, under the British Preferential Tariff and 27½% under the General Tariff.

54. Dictating and transcribing machines, ruled to be dutiable under Item 597 at 20% under the British Preferential Tariff and 30% ad valorem under the General Tariff.

55. In regard to white cotton bobinet, plain in the web, dutiable under Tariff Item 574, the following Customs order was issued on the 28th April, viz.:

> "It is held by the Department that white cotton bobinet, plain, whether shipped in boxes or otherwise, must consist of at least 50 square yards in each piece in order to be considered as 'in the web' and entitled to entry under the above tariff item."

The said item 574 is worded as follows:

> "White cotton bobinet, plain, in the web, 15% British Preferential and 25% General Tariff."

56. Steel sheets coated on one or both surfaces with nickel and costing over 3½c. per lb. ruled to be dutiable under Tariff Item 386,—free under the British Preferential Tariff and 5% under the General Tariff.

Dumping Duty.

Ruled May 20th, 1914, that Motorcycles are held to be of a class or kind of goods made in Canada, and therefore subject to the provisions of the tariff respecting special or dumping duty.

Drawback for Home Consumption.

Ruled that drawback for home consumption, under Item 1009, shall not be payable until the articles specified are ready for the use for which they are designed. In the case of axes, hatchets and other edged tools, the articles are not to be regarded as ready for use until ground to an edge. In the case of hammers, rakes, and hoes, adapted to be used with handles of wood, the metal parts of the hammers, rakes and hoes may be regarded as ready for use when finished ready to be fitted with handles of wood.

Drawback.

Re drawback on export of gold-filled scrap obtained from the manufacture of articles in Canada; ruled that a drawback may be allowed on such scrap when recovered from imported duty paid gold.

Drawback on Ship's Materials.

By Order-in-Council, dated 7th November, 1913, the payment of drawback on materials used in the construction of ships and vessels is made more equitable.

The essential provisions of the new Order-in-Council appear in the first two paragraphs thereof, as follows:

"The Regulations established by Orders-in-Council of the 19th July, 1897, 27th May, 1901, and the 12th February, 1912, respecting the payment of drawback on materials used in the construction of ships and vessels, shall be and the same are hereby repealed, as respects ships and vessels registered in Canada on and after 1st August, 1913, and the following regulations made and established for drawback on materials used in the construction of ships and vessels built in Canada and registered therein on and after the 1st August, 1913, viz:

"(1) A drawback may be granted and paid by the Minister of Customs on materials used in the construction of ships or vessels built and registered in Canada and built and exported from Canada under Governor's pass, for sale and registry in any other country, at the rate of $1.15 per gross registered ton on iron-kneed ships or vessels classed for fifteen years at the rate of 85 cents per registered gross ton on iron-kneed ships or vessels classed for nine years; at the rate of 75 cents per registered gross ton on iron-kneed ships or vessels classed for seven years; and at the rate of 65 cents per registered gross ton on all ships or vessels not iron-kneed and all ships or vessels iron-kneed and not classed."

Customs order of November 17th, 1913, that Products of Bolivia may no longer enter Canada subject to the French Treaty rates of duty:

"Referring to Memo. 1566B of the 1st January, 1910, you are advised that products of Bolivia are subject to duty under the General Tariff on importation into Canada, as there is now no Treaty or Convention affecting Canada under which Bolivia would be entitled in whole or in part to Most-Favored Nation Treatment with respect to its commerce with Canada."

There appears to have been no foreign trade of any importance between Canada and Bolivia.

Ship's Stores.

On February 23, 1914, the Customs Department added the following articles to the list of goods which may be delivered ex-warehouse without duty, as ships' stores, viz: mineral waters, bottled or not.

On the 30th April, 1914, the Customs Department added the following articles to the list of goods which may be delivered ex-warehouse without duty, as ships' stores, viz: fuel oil and gas oil.

Custom House Procedure in Regard to Small Collections.

On the 20th November, 1913, the following Customs order was issued in regard to the above, viz.:

"Referring to Memo. 1565B of 1st January, 1910, in the above matter, it is ordered that on and after 1st December, 1913, Small Collections Entries of imported goods to the value of fifty dollars on any entry, instead of twenty-five dollars as heretofore, may be accepted in respect of Customs Postal Parcels, Express Packages and Baggage, and also for goods arriving at Customs Collecting Stations."

Broker's Fees on Small Collection Entries.

On the 1st May, 1914, the Commissioner of Customs issued the following instructions to Collectors in regard to the above, viz:

"Complaints having been made to this department, regarding exorbitant charges made at times by Brokers, for passing Customs entries for importations of small value, you are advised that in the view of this Department, the charge for Customs brokerage should not exceed 50 cents when the value of the imported goods on the entry at Customs does not exceed $50.

"You are to impress this view firmly on Customs Brokers at your port or outport."

Radiotelegraph Apparatus.

On the 11th April, 1914, the Commissioner of Customs notified Collectors of Customs and others concerned to read and strictly observe the following instructions from the Department of the Naval Service, in regard to enforcing the installations of radiotelegraph apparatus on certain vessels, viz.:

Department of the Naval Service, Canada.
Ottawa, 1st January, 1914.

Radiotelegraph Branch.
Circular H.Q. No. 2.

INSTRUCTIONS FOR COLLECTORS OF CUSTOMS.

Your attention is invited to the provisions of Section 4 of the "Radiotelegraph Act," Chap. 43, Statutes 1913, which becomes effective on and after January 1st, 1914, as follows:

Section 4.

4. From and after the first day of January, nineteen hundred and fourteen, no passenger steamer, whether registered in Canada or not—

(*a*) licensed to carry fifty or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than two hundred nautical miles from one port or place to another port or place; or,

(*b*) licensed to carry two hundred and fifty or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than ninety nautical miles from one port or place to another port or place; or,

(*c*) licensed to carry five hundred or more persons, including passengers and crew, and going on any voyage which is or which includes a voyage of more than twenty nautical miles from one port or place to another port or place,

shall leave or attempt to leave any Canadian port unless such steamer is equipped with an efficient radiotelegraph apparatus, in good working order, capable of transmitting and receiving messages over a distance of at least one hundred nautical miles by night and by day, and in charge of a person fully qualified to take charge of and operate such apparatus.

2. The owner, master or other person in charge of any passenger steamer which leaves or attempts to leave any Canadian port contrary to the provisions of this section shall, on summary conviction, be liable to a fine not exceeding one thousand dollars and costs, and such fine and costs shall constitute a lien upon such passenger steamer.

3. This section shall not apply to passenger steamers plying on the rivers of Canada, including the River St. Lawrence as far seaward as a line drawn from Father Point to Point Orient, or on the Northumberland Straits, or on the Georgian Bay, or on the lakes of Canada other than Lakes Ontario, Erie, Huron and Superior, and the provisions of paragraph (*c*) of subsection 1 of this section shall not apply to steamers making voyages on Lakes Ontario, Erie, Huron and Superior, the regular route for which is not at any point more than seven miles from the shore.

4. This section shall not apply to steamers calling at Canadian ports solely for the purpose of obtaining bunker coal or provisions for the use of such steamer, or through stress of weather, or for repairs.

Collectors of Customs shall ascertain if the passenger vessels, subject to this section of the Act, which visit their ports, are equipped with the necessary apparatus in charge of a competent operator, as prescribed.

Apparatus.

The apparatus shall be deemed to be in good working order, if it be regularly licensed by the Canadian or any foreign government, such license to be produced on request.

(It should be noted that Radiotelegraph licenses are usually issued for a certain definite period and expire on a date specified in the license.)

In the case of vessels of Canadian register, in addition to the above mentioned license, "Radiotelegraph Inspection Certificates" are also issued by the Department of the Naval Service, certifying that the apparatus was in good working order and complied with the provisions of the Act on the date of last inspection; such certificates are valid for one year from date of issue.

Operators.

The operator in charge of the radiotelegraph station on the vessel shall be deemed to be properly qualified if he be the holder of a "First Class Certificate of Proficiency in Radiotelegraphy," issued by any government, such certificate to be produced on request.

Number of Persons.

The number of persons a vessel is licensed to carry, including both passengers and crew, is shown on the Certificate of Inspection issued to the ship by a "Steamboat Inspector" or other corresponding authority.

Action to be Taken in Case of a Violation.

When a passenger steamer, subject to the provisions of Section 4 of the "Radiotelegraph Act" is not provided with the apparatus and operator prescribed, or either of them, and is about to attempt to leave port, the Collector of Customs shall:—

(*a*) notify the master of the vessel of the particulars wherein the law is violated, and of the fine to which he will be liable;

(*b*) notify the Deputy Minister of the Naval Service by telegraph, giving a concise statement of the case and stating wherein the law has not been complied with;

(*c*) refuse the vessel a clearance for the purpose of enabling her to proceed on a voyage, pending the receipt of advice from the Deputy Minister of the Naval Service;

(*d*) forward to the Deputy Minister of the Naval Service a confirmation of the telegraph, and any further information with respect to the violation, which it is considered might be of service in determining what action shall be taken. All such information to be precise statements of facts with a view to their possible use as a basis for proceedings against the Master and owners of the vessel.

G. J. DESBARATS,
Deputy Minister, Department of the Naval Service.

SCHEDULE "B"

Bill 169.

An Act to amend The Customs Tariff, 1907.

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. This Act may be cited as *The Customs Tariff Act, 1914.*

2. Section 7 of *The Customs Tariff, 1907*, chapter 11 of the statutes of 1907, is repealed and the following substituted therefor:—

"**7**. Goods imported into Canada, the product or manufacture of any foreign country which treats imports from Canada less favourably than those from other countries, may be made subject by order of the Governor in Council in the case of goods already dutiable to a surtax over and above the duties specified in Schedule A to this Act, and in the case of goods not dutiable to a rate of duty, not exceeding, in either case, twenty per cent. ad valorem.

2. Goods the product or manufacture of any foreign country imported into Canada in vessels admitted to registration under the laws of such foreign country may, if such foreign country imposes higher duties of Customs, upon such goods imported into such country in vessels registered in Canada than upon the like goods when imported in vessels of such country, be made subject by order of the Governor in Council in the case of goods already dutiable to a surtax over and above the duties specified in Schedule A to this Act, and in the case of goods not dutiable to a rate of duty, not exceeding in either case, twenty per cent. ad valorem.

3. Within the limitations in this section hereinbefore prescribed any such goods may by such order in council be made subject to a surtax or rate, as the case may be, differing from the surtax or rate to which another class of goods may be thereby, or by any other such order, made subject.

FORMER TARIFF PROVISION.

7. Articles which are the produce or manufacture of any foreign country which treats imports from Canada less favourably than those from other countries, may be subject to a surtax over and above the duties specified in Schedule A to this Act, such surtax in every case to be one-third of the duty specified in the General Tariff in the said schedule.

2. Any question arising as to any foreign country or goods coming under the operation of this section shall be decided by the Minister of Customs, whose decision shall be final.

3. The Governor in Council may make regulations for carrying out the purposes of this section, and may, by order in council, from time to time suspend the surtax from application to the goods of any country.

4. The Governor in Council may make regulations for carrying out the purposes of this section and may by order in council suspend the surtax or rate in whole or in part from application to the goods of such foreign country or any class of such goods.

5. The decision of the Governor in Council shall be final on any question which may arise regarding the application of the surtax or rate imposed pursuant to this section."

3. Section 10 of *The Customs Tariff, 1907*, chapter 11 of the Acts of 1907, is amended by adding thereto the following subsection:—

"2. If pig iron imported into Canada mixed with pig iron made in Canada has entered into the manufacture of mowing machines, reapers, harvesters, binders and attachments for binders, the drawback payable in pursuance of this section, under regulations by the Governor in Council, may be computed on the total quantity of pig iron, including pig iron made as aforesaid, entering into such goods; Provided, however, that the total drawback payable shall not exceed ninety-nine per cent. of the duty paid on all the pig iron imported and used by the manufacturer of such goods in manufacturing such goods and other goods."

4. The Governor in Council may by order in council direct that there be substituted for tariff item 379 in Schedule A of *The Customs Tariff, 1907*, and the several rates of duties of Customs set opposite said item in Schedule A the following:—

Tariff Items.		British Preferential Tariff.	Intermediate Tariff.	General Tariff.
379	Rolled iron or steel angles, beams, channels and other rolled shapes or sections, of iron or steel, not punched, drilled or further manufactured than rolled, weighing over one hundred and twenty pounds per lineal yard, n.o.p. not being square, flat, oval or round shapes, and not being railway bars or rails..per ton	$ cts. 2 00	$ cts. 3 00	$ cts. 3 00

2. From and after the publication of such order in council in *The Canada Gazette* tariff item 379 as it appears in said schedule at the time of the passing of this Act shall be repealed and the provisions of the said tariff item as it appears in the last preceding subsection of this section shall be substituted therefor.

3. The Governor in Council shall not direct that such provision shall be substituted as aforesaid unless and until the Governor in Council is satisfied that rolled iron or steel angles, beams, channels and other rolled shapes or sections of iron or steel weighing one hundred and twenty pounds and less per lineal yard are manufactured in substantial quantities in Canada from steel made in Canada.

5. Schedule A to *The Customs Tariff, 1907*, as amended by chapter 15 of the Acts of 1913, and by orders in council is further amended by striking thereout tariff items:—113, 184, 208, 210a, 296, 306, 315, 361, 375, 398, 404, 410, 411, 445, 446a, 460, 471, 486, 542, 543, 545, 546, 575, 577, sections (a) and (d) of the orders in council dated 11th August, 1908, designated as items 717 and 720 of The Customs Tariff, the several enumerations of goods respectively, and the several rates of duties of Customs, if any, set opposite each of said items, and the following items, enumerations and rates of duties are inserted in said Schedule A:—

Tariff Items.		British Preferential Tariff.	Intermediate Tariff.	General Tariff.	FORMER TARIFF PROVISION. British Preferential Tariff.	Intermediate Tariff.	General Tariff
39c	Cassava flour, when imported by manufacturers of explosives, for use exclusively in the manufacture of such article in their own factories	Free.	Free.	Free.	¾c. lb.	1c. lb.	1c. lb.
79a	Rooted carnation cuttings in their first year of introduction	Free.	Free.	Free.	An administrative change only.		
99a	Dried or evaporated bananas, ... per pound	Free	½ cent.	½ cent.	17½ p.c.	22½ p.c.	25 p.c.

					FORMER TARIFF PROVISION.		
113	Cocoanut, desiccated, sweetened or not .....per pound	3 cents.	4 cents.	4 cents.	2 cents.	4 cents.	4 cents.
157a	Amyl alcohol or refined fusel oil, when imported by the Department of Inland Revenue or by a person licensed by the Minister of Inland Revenue, to be denatured for use in the manufacture of metal varnishes or lacquers, to be entered at ports prescribed by regulations of the Ministers of Customs and Inland Reenue, subject to the Inland Revenue Act and to the regulations of the Department of Inland Revenue	Free.	Free.	Free.	$2 40 gal.	$2 40 gal.	$2 40 gal.
178a	Provided that on the goods specified in item 178 and imported by mail on and after first day of July, 1914, duties may be paid by Customs Revenue stamps under regulations by the Minister of Customs, at the rates specified in said item, except that on each separate package weighing not more than one ounce the duty shall be ..... each	1 cent.	1 cent.	1 cent.	An administrative change only.		
184	Newspapers, and quarterly, monthly, and semi-monthly magazines, and weekly literary papers, unbound; tailors', milliners', and mantle-makers' fashion plates when imported in single copies in sheet form with magazines or periodical trade journals	Free.	Free.	Free.	This excludes fashion books which formerly were free.		
188a	Decalcomania paper not printed when imported by manufacturers of decalcomania transfers to be used in their own factories in the manufacture of decalcomania transfers	Free.	Free.	Free.	22½ p.c.	32½ p.c.	35 p.c.
208	Boracic acid and borax in packages of not less than twenty-five pounds weight; hydro-fluosilicic acid; oxalic acid, tannic acid; ammonia, sulphate of; sal ammoniac and nitrate of ammonia; cyanide of potassium, cyanide of sodium and cyanogen bromide for reducing metals in mining operations; antimony salts, viz.:—tartar emetic, chlorine and lactate (antimonine); arsenous oxide; oxide of cobalt; oxide of tin; bichlorate of tin; tin crystals; oxide of copper; precipitate of copper, crude; sulphate of copper (blue vitriol); verdigris or subacetate of copper, dry; sulphate of iron (copperas); sulphate of zinc; chloride of zinc; sulphur and brimstone, crude or in roll or flour; cream of tartar, in crystals or argols tartaric acid crystals; iodine, crude; bromine phosphorus; sulphide of arsenic; carbon bisulphide	Free.	Free.	Free.	Carbon bisulphide was heretofore dutiable at— 15 p.c.	17½ p.c.	17½ p.c.
208a	Chloride of lime and hypochlorite of lime:—						
	1. When in packages of not less than twenty-five pounds weight each .....per one hundred pounds	10 cents.	15 cents.	15 cents.	Free.	Free.	Free.
	2. When in packages of less than twenty-five pounds weight each	17½ p.c.	25 p.c.	25 p.c.	15 p.c.	17½ p.c.	17½ p.c.
210a	Caustic soda:—						
	1. When in packages of not less than twenty-five pounds weight each	1-5 cent.	3-10 cent.	3-10 cent.	Free.	Free.	Free.
	2. When in packages of less than twenty-five pounds weight each	17½ p.c.	25 p.c.	25 p.c.	10 p.c.	12½ p.c.	15 p.c.
278a	Peanut oil for manufacturing soap or for canning fish; soya bean oil for manufacturing soap	Free.	Free.	Free.	15 p.c.	17½ p.c.	17½ p.c.
296	Flint, ground flint stones, felspar, fluorspar, magnesite; mica schist, cliff, chalk, china or Cornwall stone, ground or unground, refuse stone, not sawn, hammered or chiselled nor fit for flagstone, building stone or paving	Free.	Free.	Free.	Mica schist enumerated for administrative purposes. Soapstone dropped from Item 296 and now dutiable at— 15 p.c.	17½ p.c.	17½ p.c.
306	Marble, sawn or sand rubbed, not polished; granite, sawn; paving blocks of stone flagstone and building stone, other than marble or granite, sawn on not more than two sides ...						
306a	Building stone, other than marble or granite, sawn on more than two sides, but not sawn on more than four sides.....	15 p.c.	20 p.c.	20 p.c.	15 p.c.	17½ p.c.	20 p.c.
	.....per one hundred pounds	10 cents.	15 cents.	15 cents.	15 p.c.	17½ p.c.	20 p.c.

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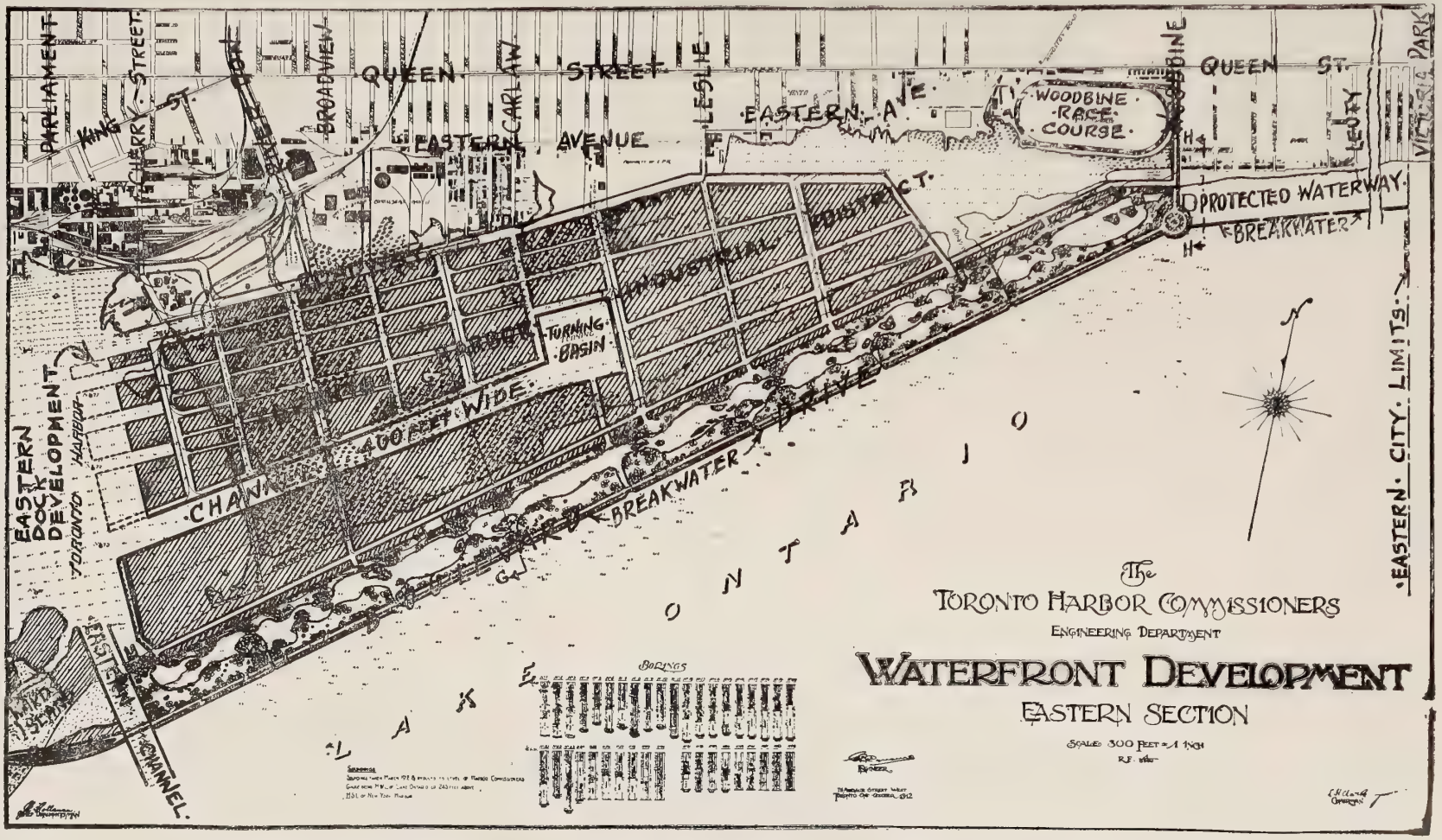
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306b	Building stone, other than marble or granite, planed, turned, cut or further manufactured than sawn on four sides ....per one hundred pounds	30 cents.	45 cents.	45 cents.	15 p.c.	17½ p.c.	20 p.c.
315	Carbons over three inches in circumference or outside measurement and not exceeding thirty-five inches in circumference or outside measurement	Free.	Free.	Free.	From three inches to six inches in circumference, formerly— 22½ p.c.	32½ p.c.	35 p.c.
315a	Carbon electrodes exceeding thirty-five inches in circumference or outside measurement..	12½ p.c.	20 p.c.	20 p.c	Free.	Free.	Free.
327a	Silvered lenses for automobile lamps	10 p.c.	15 p.c.	15 p.c.			
353a	Aluminum leaf or foil	Free.	Free.	Free.	"Aluminum leaf" dropped from Item 361 and put in new Item 353a.		
361	Gold and silver leaf; Dutch or schlag metal leaf; brocade and bronze powders	15 p.c.	27½ p.c.	27½ p.c.			
375	Iron in pigs, iron kentledge, and cast scrap iron; ferrosilicon containing not more than fifteen per cent. silicon; ferromanganese and spiegeleisen, containing not more than fifteen per cent. manganese .... per ton	$1 50	$2 50	$2 50	$1 50	$2 25	$2 50
375a	Ferrosilicon containing more than fifteen per cent. silicon .. .. per ton	$3 00	$4 50	$4 50	$1 50	$2 25	$2 50
375b	Ferromanganese and spiegeleisen, containing more than fifteen per cent. manganese	Free.	Free.	Free.	$1 50	$2 25	$2 50
378a	Galvanized rolled hoop iron or hoop steel, numbers twelve and thirteen gauge .....per ton	$4 25	$7 00	$7 00	20 p.c.	27½ p.c.	30 p.c.
398	Wrought or seamless iron or steel tubing, plain or galvanized, threaded and coupled or not, over four inches in diameter but not exceeding ten inches in diameter, n.o.p.....	20 p.c.	30 p.c.	30 p.c.	10 p.c.	12½ p.c.	15 p.c.
398a	Wrought or seamless iron or steel tubing, plain or galvanized, threaded and coupled or not over ten inches in diameter, n.o.p.	10 p.c.	15 p.c.	15 p.c.	10 p.c.	12½ p.c.	15 p.c.
404	Galvanized iron or steel wire, curved or not, numbers nine, twelve and thirteen gauge with variations from such gauges not exceeding four one-thousandths of an inch, and not for use in telegraph or telephone lines	Free.	Free.	Free.	Free.	Free.	Free.
410	Coil chain, coil chain links including repair links, and chain shackles, of iron or steel, one and one-eights of an inch in diameter and over	Free.	5 p.c.	5 p.c.	5 p.c. Under 5-16 th inch—	7½ p.c	10 p.c.
410a	Coil chain, coil chain links including repair links, and chain shackles, of iron or steel, n.o.p.	15 p.c.	20 p.c.	20 p.c	20 p.c. Otherwise— 5 p.c.	27½ p.c. 7½ p.c.	30 p.c. 10 p.c.
411	Malleable sprocket chain, and link belting chain of steel, when imported by manufacturers of agricultural implements for use in the manufacture of such implements in their own factories	Free.	Free.	Free.	Heretofore free for any purpose.		
445	Mowing machines, harvesters, self binding or without binders, binding attachments, reapers, and complete parts thereof, not including shafting or malleable iron castings; also finished parts for repairs of the machines specified in this item	12½ p.c.	12½ p.c.	12½ p.c.	12½ p.c.	17½ p.c.	17½ p.c.
445a	Malleable iron castings when imported by manufacturers for use exclusively in their own factories in the manufacture of mowing machines, harvesters, binding attachments and reapers	15 p.c.	17½ p.c.	17½ p.c	12½ p.c.	17½ p.c.	17½ p.c.
446a	Traction ditching machines (not being ploughs) adapted for tile drainage on farms, valued by retail at not more than three thousand dollars each, and complete parts thereof for repairs	Free.	Free.	Free.	"Complete parts" heretofore dutiable.		
453a	Electric dental engines	15 p.c.	27½ p.c.	27½ p.c	Free.	Free.	Free.
460	Sundry articles of metal as follows, when for use exclusively in mining or metallurgical operations, viz.:—Diamond drills, not including the motive power; coal cutting machines, except percussion coal cutters, coal augers and rotary coal drills; coal heading machines; core drills; miners' safety lamps and parts thereof, also accessories for cleaning, filling and testing such lamps; elec-						

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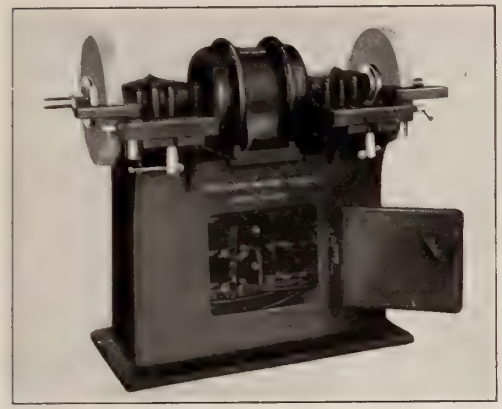
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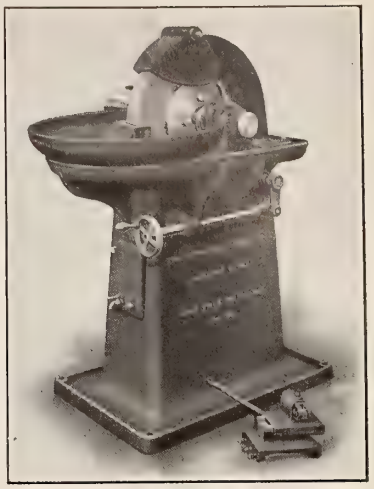
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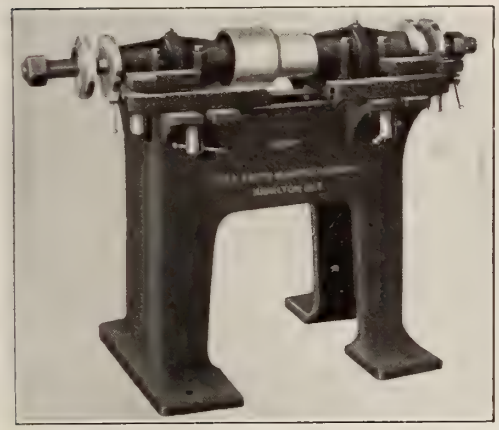
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	tric or magnetic machines for separating or concentrating iron ores; furnaces for the smelting of copper, zinc and nickel ores; converting apparatus for metallurgical processes in metals; copper plates, plated or not; machinery for extraction of precious metals by the chlorination or cyanide processes; amalgam safes; automatic ore samplers; automatic feeders; retorts; mercury pumps; pyrometers; bullion furnaces; amalgam cleaners; blast furnace blowing engines; and integral parts of all machinery mentioned in this item	Free.	Free.	Free.	Wrought iron tubing dropped from item 460 and now dutiable under items 398 and 398A.
471	Rolled round wire rods in the coil, of iron or steel, not over three-eighths of an inch in diameter, when imported by wire manufacturers for use in making wire in the coil in their own factories....per ton	$2 25	$3 50	$3 50	Free. Free. Free.
471a	Rolled round rods in the coil, of iron or steel, whether annealed or cleaned, or not, when imported by manufacturers of chain for use only in their own factories in the manufacture of chain .....per ton	$2 25	$3 50	$3 50	When annealed:— $4.25 $6.00 $7.00 ton. Otherwise:— Free. Free. Free.
478a	Iron or steel bands, strips or sheets, number fourteen gauge or thinner, coated, polished, or not, and rolled iron or steel sections, not being ordinary square, flat or round bars, when imported by manufacturers of saddlery hardware and hames for use exclusively in the manufacture of such articles in their own factories	Free.	Free.	Free.	Iron or steel bands, strips and sheets, number fourteen gauge and thinner, formerly:— Free. 5 p.c. 5 p.c. Balance of item, formerly:— $4.25 $6.00 $7.00 ton
486	Iron tubing, brass covered, not over three inches in diameter, and brass trimmings, not polished, lacquered or otherwise manufactured, when imported by manufacturers of iron or brass bedsteads for use exclusively in the manufacture of such articles in their own factories	Free.	Free.	Free.	Change raises diameter from two to three inches.
494a	Cork slabs, boards, planks and tiles produced from cork waste or granulated or ground cork .	20 p.c.	30 p.c.	30 p.c.	15 p.c. 17½ p.c. 20 p.c.
533a	Garnetted wool waste in the white when imported by manufacturers of woollen goods for use exclusively in their own factories	Free.	Free.	Free.	7½ p.c. 10 p.c. 12½ p.c.
542	Jute or hemp yarn, plain, dyed or colored, when imported by manufacturers for use exclusively in their own factories for weaving purposes, or for insulating wire, or for the manufacture of hammocks and twines	Free.	Free.	Free.	An administrative change.
543	Linen yarn when imported by manufacturers of towels, damask, or seamless linen fire hose duck, for use exclusively in the manufacture of such articles in their own factories....	Free.	Free.	Free.	Added to free list: "for mfr. seamless linen, fire hose duck."
545	Jute and jute butts; jute cloth or jute canvas, as taken from the loom, not colored, cropped, mangled, pressed, calendered, nor finished in any way	Free.	Free.	Free.	This change omits "jute canvas, uncolored," heretofore free under this item.
546	Jute cloth or jute canvas, uncolored, not further finished than cropped, bleached, mangled, or calendered	7½ p.c.	10 p.c.	10 p.c.	The words "or jute canvas" are added to this item.
548a	Twine or yarn of paper when imported by manufacturers of furniture for use only in their own factories in the manufacture of furniture	Free.	Free.	Free.	20 p.c. 22½ p.c. 25 p.c.
575	Embroideries, n.o.p.; lace, n.o.p.; braids, n.o.p.; tapes of cotton or linen not over one and one-quarter inches in width, not including measuring tape lines; fringes, n.o.p.; cords, elastic, round or flat; garter elastic; tassels; handkerchiefs of all kinds; lace collars and all manufactures of lace; nets and nettings of cotton, linen, silk, and other material n.o.p.; shams and curtains, when made up, trimmed or untrimmed; corsets of all kinds; linen or cotton clothing, n.o.p.	25 p.c.	32½ p.c.	35 p.c.	The words: "tapes of cotton or linen not over one and one-quarter inches in width, not including measuring tape lines," added to this item.
577	Silk in the gum or spun silk, when imported by manufacturers of silk underwear or of woven labels, and spun silk when imported by manufactur-				



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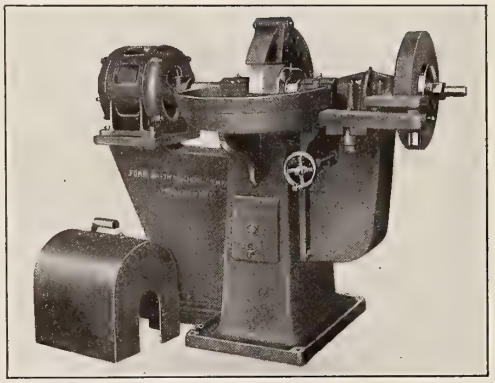
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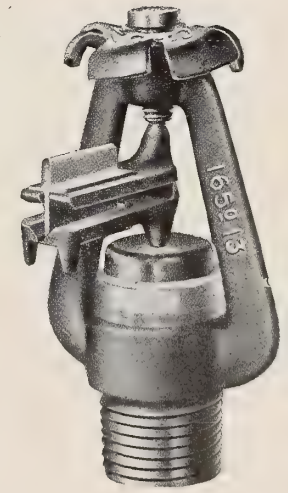
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	and.....	20 p.c.	30 p.c.	30 p.c.
671a	Metal tips, studs and eyes adapted for the manufacture of corset clasps and corset wires	Free.	Free.	Free.
692a	Articles presented from abroad in recognition of the saving of human life, under regulations by the Minister of Customs ...	Free.	Free.	Free.

2. Schedule B to The Customs Tariff, 1907, is amended by striking thereout tariff items 1017 and 1019, the several enumerations of goods respectively, and the several rates of drawback of Customs duties set opposite each of the said items, and the following items, enumerations, and rates of drawback of Customs duties are inserted in said Schedule B:—

Item No	Goods.	When subject to Drawback.	Portion of duty (not including special duty or dumping duty) payable as Drawback.
1017	Lap welded tubing of iron or steel, not less than four inches in diameter, threaded and coupled or not.	When used in casing water, oil and natural gas wells, or for the transmission of natural gas under high pressure from gas wells to points of distribution	50 per cent.
1019	Bituminous coal	When imported by proprietors of coke ovens and converted at their coke ovens into coke for use in the smelting of metals from ores and in the melting of metals	99 per cent.
1021	Rolled round wire rods in the coil, of iron or steel, not over three-eighths of an inch in diameter.	When used in the manufacture of galvanized iron or steel wire, curved or not, numbers nine, twelve and thirteen gauge, with variations from such gauges not exceeding four one-thousandths of an inch	99 per cent.
1022	Charcoal	When used for the smelting of metals from ores	99 per cent.
1023	Rolled hexagon iron or steel bars.	When used in the manufacture of cold drawn or cold rolled iron or steel bars..	99 per cent.
1024	Yarns composed in chief value of wool, single, numbers thirty and finer, on mule cops, tubes or cones, or in hanks, dry spun on the French or Belgian systems, in white only, not doubled or twisted.	When used in the manufacture of socks and stockings	99 per cent.

3. Schedule C (Prohibited Goods) to The Customs Tariff, 1907, is amended by adding the following:—

"1212. Aigrettes, egret plumes, or so called osprey plumes, and the feathers, quills, heads, wings, tails, skins, or parts of skins of wild birds either raw or manufactured; but this provision shall not come into effect until 1st January, 1915, and shall not apply to:

(*a*) the feathers or plumes of ostriches;

(*b*) the plumage of the English pheasant and the Indian peacock;

(*c*) the plumage of wild birds ordinarily used as articles of diet;

(*d*) the plumage of birds imported alive, nor to—

(*e*) Specimens imported under regulations of the Minister of Customs for any natural history or other museum or for educational purposes."

FORMER TARIFF PROVISION.

The words: "and spun silk when imported by manufacturers of silk thread," added to this item.			
22½ p.c.	30 p.c.	35 p.c.	
20 p.c.	27½ p.c.	30 p.c.	
Administrative change			

Item No	Goods.	When subject to Drawback.	Portion of duty (not including special duty or dumping duty) payable as Drawback.
1017	Lap welded tubing of iron or steel, not less than 2½ inches in diameter, threaded and coupled or not, testing one thousand pounds pressure per square inch.	When used in casing water, oil and natural gas wells	99 per cent.
		When used for transmission of natural gas under high pressure from gas wells to points of distribution	50 per cent.
1019	Bituminous coal	When imported by proprietors of smelting works and converted at the works into coke for the smelting of metals from ores	99 per cent.

New item to be read in conjunction with item 404.		
New item	do	
New item	do	
New item	do	

6. This Act shall be held to have come into force on the seventh day of April, one thousand nine hundred and fourteen, and to apply to and have applied to all goods mentioned in the preceding section imported or taken out of warehouse for consumption on and after that day, and to have also applied to such goods previously imported for which no entry for consumption was made before that day.

Provided, however, that notwithstanding any increase in Customs duties under this Act, all goods actually purchased on or before the sixth day of April, one thousand nine hundred and fourteen, for importation into Canada, on evidence satisfactory to the Minister of Customs of the purchase having been so made, and all goods in warehouse in Canada on such day, if entered for duty after importation prior to the first day of July, one thousand nine hundred and fourteen, may be entered at the rate of duty in force on the said sixth day of April, one thousand nine hundred and fourteen.

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ADDRESS OF MR. C. B. GORDON, PRESIDENT.

(Continued from page 1519.)

of the tremendous bodies of raw materials of coal, iron, nickel, silver, oil, etc., all of which are closely identified with manufacturing interests. Many undeveloped materials may now be approached and developed, as a result of the railroad and municipal investments to which I have referred, and the development of these resources can be the means of turning what to-day may be looked upon as doubtful assets into paying propositions.

The members of the Canadian Manufacturers Association have a duty to perform here which they must not lose sight of. It must not be supposed for a moment that these enormous extensions to our railroads can be made to pay through agriculture alone. In order to promote and develop the traffic which is necessary to make these lines pay we must establish in those parts of the country through which they go manufacturing industries suitable for the development of the resources of that particular part of the country, and thus get the full benefit of the capital expenditures which already have been made.

In my opinion there is nothing which will do more to increase the credit of this country in Great Britain than to let those people know from whom we borrowed money that our intention now is to devote our energies to placing upon a firm basis the many undertakings in which money has already been invested, and which now requires careful management for their development.

In this connection I am prompted to remark that the prosperity we have enjoyed of recent years has been more or less artificial. To a great extent it has rested upon a solid basis of profitable production, but to some extent it has not. Large sums of money have been spent rapidly, the chief object being, seemingly, to get things done, no matter what the cost might be, and without due regard to economy or to the overhead burdens which the increased cost placed upon the industry.

Sometimes, and for some businesses, these periods of so-called prosperity produce a very difficult situation. Many manufacturers during the past three years have had more business than they could attend to profitably; in fact in their endeavor to turn out stuff quickly, they lost sight of the fact that costs of production were rapidly advancing, and in the course of time they found that raw material and labor and general overhead expenses had advanced to such an extent that they would have been better off had they had less business, produced on a more economical basis. We will, therefore, find ourselves handicapped for the time being by habits we have learned, which will have to be unlearned, and by methods we have become accustomed to which will have to be abandoned. So long as we are spending huge sums rapidly for construction and development work, labor received high wages, materials commanded a high price, and everybody seemed prosperous. Irrespective of tariffs, taxes and freight rates, business kept forging ahead. We set for ourselves and for our work-people a standard of expensive living second to none in the world. In these and other ways our costs have become inflated as compared with the costs of competitors in other countries, with the result that our tariff no longer protects us to the same extent that it used to.

I do not cite these conditions as an argument for higher protection, but rather as pointing to the necessity for more economical methods of production and development. By all means let us progress, but let us be content to progress more slowly, so long as it be more wisely and more safely. Let us endeavor to suit our methods to the measure of protection the tariff affords us, with no thought for the present of either raising or lowering it, but rather giving it that stability which makes for steady growth in every department of industrial activity.

Despite the constant criticisms of our tariff by those who would cut it down or remove it altogether, the fact remains that the advance we have made, and the growth we have experienced as a nation, has practically all come about under protection. It is also an indisputable fact that our economic development has not kept pace with our development in other directions. We have settled our homesteads with speed, but perhaps with too little care; we have extended our means of communication far beyond our present requirements; we have invested heavily in equipment and in institutions for our better government, federally, provincially, and municipally. By one means and another we have kept adding to our overhead expense, without making sure the while that there was a larger output to justify it. The problem now before us is to make our investments pay, to force ourselves to produce in corresponding quantities. To lower the tariff at such a juncture would be suicidal, for its effect could only be to discourage us from doing the very thing we ought to be encouraged to do.

If many of our resources have lain dormant under a policy of moderate protection, it is unreasonable to suppose that they will spring into activity if the difficulties of operation are increased by any lowering of the tariff. One of the industries which the tariff of this country should have caused to flourish is the stockraising industry. The great consuming centres of Canada provide an ever-growing market in which the stock-raiser is protected. Just why that market has not been taken more advantage of is difficult to understand, for prices have kept mounting in a manner that should have made it most attractive. But to-day vast areas in the West are given over to the production of wheat alone, in which there is admittedly little profit, while stock-raising is apparently neglected.

The trouble with our tariff is that it is not practical enough. When it fails to yield the desired result, as in this instance, it should be supplemented by some means that will afford practical assistance in getting things started in the right direction. It is wrong to argue because of agricultural conditions in the West, that our protective policy has failed. It is not the policy that has failed, but rather the farmer in omitting to take full advantage of the opportunities it affords him. If financial difficulties stand in the way of his doing so, let us try to devise some means of helping him. If custom and prejudice stand in the way, then let us insist on a certain amount of stock-raising as part of the qualifications for every homesteader. However it be done, the main thing is to see that it is done. For the good of the country as a whole we want, not a one-sided development, but the regular, even and systematic development of all our resources, each part of the community ministering together for the advancement of our common interests and our common welfare.

But although our future is largely dependent upon the energy which our farmers and manufacturers devote to their different callings, there is another great and important agency which we must not lose sight of, and which, as manufacturers we recognise as an ever-present power. The influence of our newspapers to-day upon our farmers, our artizans, and upon labor generally, cannot be too much emphasized. The press, through its wide-spread influence can either bind together the agricultural and manufacturing interests of this country, and thus promote the development of the country as a whole, or it can make it appear that these two great interests are diametrically opposed to each other. Unfortunately some sections of the press are controlled by interests that may be described as opportunists, and that seize upon any policy which they think will add to their circulation, losing sight altogether of the fact that they have a public duty to



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perform. They publish editorials and articles which tend to create misunderstandings and dissensions among people in different localities and in different occupations, and principally between the two great classes engaged in agriculture and manufacture. These editorials and articles constantly give the impression that manufacturers and farmers are natural enemies, instead of natural allies with a common interest in the nations' growth. In some cases, no doubt, this line of action is inspired by political motives, but there can be little doubt that the chief purpose of those journals which publish sensational matter is to attract popular attention in the hope of increasing their circulation. We members of the Canadian Manufacturers Association, recognizing the power which the press can exert, call upon newspaper men all over the Dominion, irrespective of party, to assist in an endeavor to show that no conflict must or can exist as to the relative importance of agriculture and manufacturing in this country, pointing out that, to make full use of the heavy expenditures of capital which have been made in railroads, and other enterprises already referred to, it must be done on joint account, otherwise these enterprises cannot be put upon a paying basis.

Canada needs business men in her parliaments, in her legislatures, in her municipal councils, just as she needs professional men, artisans, and agriculturists. We are a people of diversified occupations. We aim to give ourselves representative government. But no government is truly representative in which lawyers and farmers predominate to the exclusion of other classes. I make no special plea for an increased representation of manufacturers, but I do feel that business interests generally, including wholesale and retail merchandising, banking, insurance, transportation and building, and labour interests too, have not the voice they should have in the shaping of our public policies. It is to be regretted that men of capacity, who can speak adequately for such interests, are not freer in offering themselves for election. In municipal affairs it is little short of deplorable that the expenditure of vast sums of money is so often entrusted to men who by training and experience are utterly unfitted for the responsibility, and whose only qualification seems to be a demagogic ability to command votes. The correction of this condition rests with ourselves. We can apply the remedy if only we are willing to pay the cost in the form of public services. Naturally it will involve sacrifices, but surely none that will not be more than justified by the results.

Touching the work of our Association and its accomplishments, I feel that I need say very little. We have had our successes, and perhaps, too, some few failures. These will be fully dealt with in the reports that will be laid before you. Let me bespeak for their consideration that same thoughtfulness and moderation that have always characterized your deliberations in convention.

Of special interest will be the report of the Committee on Workmen's Compensation, dealing with advanced legislation that has recently been enacted in Ontario. The only comment I feel prompted to offer in this connection is by way of correcting a popular misapprehension. Our organization is not opposed to the principle of compensation. On the contrary, we maintained from the outset, apart altogether from humanitarian consideration, that human wear and tear was just as legitimate a charge upon production as any other kind of depreciation, and should be liberally provided for. We did oppose certain features of the Act, some for the reason that we believed them unjust, others for the reason that we regarded them as impracticable of operation. But now that the Act has become law we will all, I am sure, give it our support, and wish for it a success exceeding our expectation. And let me add my personal hope that when experience has shown us what is best in compensation legislation, we will be able to embody it in a Federal law, so that every workman in every part of Canada will enjoy that protection that is no more than his due.

You may be asked, at a later stage of this Convention, to take some stand upon the question of the control of inland water freight rates. This is a subject on both sides of which a great deal may be said. Theoretically, water competition is a regulator of rail rates, and the right of contract should not, therefore, be interfered with. The recent approximation of water rates to rail rates would not of itself seem sufficient to justify intervention by legislation. On the other hand, vast sums of public money are expended each year in improving, extending and maintaining our inland water systems, and those who pay the bills have perhaps a right to fix the maximum tolls that may be charged. It is important, however, not to overlook the effect which such regulation might have on the routine of business, and the encouragement it might give towards the diversion of traffic from Canadian to United States ports. For the present the lack of control is giving rise to no really serious hardship, and under the circumstances I feel it would be unwise to force the issue, pending such experiments as the United States may see fit to make in that direction.

In conclusion, allow me once more to express my genuine appreciation of the honours and privileges I have enjoyed at your hands. To have been permitted to preside, even if only for a short time, over the destinies of so large and so influential an organization, will always be for me a source of satisfaction and of pleasant recollection. My duties have been made light by the splendid work of the Committees, as well as by the loyal support consistently given me by the staff, to all of whom I extend my warmest thanks. I congratulate the Association on its choice of a new President, and on its good fortune to be able to command the services of one in whom zeal, energy and discretion are combined in such rare degree. To him and to the Association at large I offer my best wishes for the coming year.

PRESIDENT-ELECT HENDERSON'S ADDRESS.

(Continued from page 1521.)

the worth of measures introduced for consideration. Surely all bills introduced by governments cannot be utterly wrong, as oppositions would have us believe, and surely those members who support such and such measures cannot all be dishonest and corrupt; nor can those who compose oppositions all be "grafters" and untruthful, as government members suggest. The party press colors facts. It cannot be edifying for the younger generation to read such partisan nonsense, which has a most injurious effect. Surely the time has come in Canada when some restraint should be exercised, and an example given of toleration and forbearance by the members of Parliament. It is ridiculous to suppose that, because a man happens to be a member of a political party, he is incapable of forming a right judgment or of being honest in his intentions, as the newspaper devoted to the opposite party would often have us believe; and it will be difficult, I should think, to get business men to enter Parliament if time is to be occupied and wasted by bitter personal attacks and so-called scandals rather than by careful, serious and exhaustive consideration of the merits of proposals.

The Abuse of the Party System.

Again, to some of us it would appear as if the party system was carried much too far, extending as it does not only into our local legislatures, but even into municipal matters, sometimes with disastrous results. What special gift a man may have in the business administration of provincial affairs or municipal matters because he is a Conservative or

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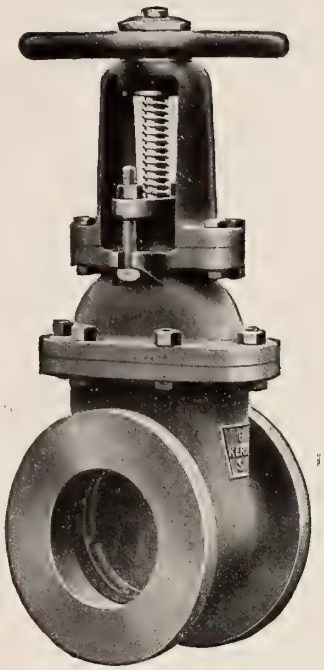
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Liberal it is hard to say, but the fact remains that politics rather than business seem to affect elections; indeed, to some of us it would appear that instead of the welfare of the whole, the effect on voters was considered by those in office. An illustration of this is the Workmen's Compensation Bill lately passed in Ontario. I scarcely think that careful business considerations alone would ever permit either party to sanction an Act which will compel payment of possibly eleven hundred dollars a year for fifty years to an employee, who through his own carelessness becomes crippled for life, or that business considerations would alone compel a railway company to provide an annuity for life to an engineer who by wilful neglect, or worse, wrecked a train and possibly killed members of your family or mine? Yet such is the law which becomes effective next year. I admit it may be hard for the families of the persons injured, and possibly no monetary allowance would compensate, but why depart from the law, even if "the existing law inflicts injustice on the working man" as was stated by a high legal authority, by going to the opposite extreme and inflicting injustice on other parties?

From what I have said some will assume, and statements will be made that we oppose a Workmen's Compensation Bill. Such statements are absolutely false and malicious. The members of the Canadian Manufacturers Association in Ontario, more than anyone else, be it judge or legislator, were anxious for such legislation; desirous in every way to assist, and were willing possibly to go further in the scale of compensation than any province, state or country in the world, in order that a just and reasonable solution might be reached.

Western Legislation.

Again, in the Province of Alberta, legislation has been passed which, to some of us, would appear to be framed in order to catch the popular vote, and is certainly not based on principles which business men would claim the situation demanded.

How can such matters be remedied? By continuing to return to Parliament and Legislatures more lawyers and politicians or by urging the candidature and election of business men and manufacturers and of men who will consider the general good far above party or place. We have many such in our Parliament to-day, men who have sacrificed themselves and devoted their talents to the welfare of our country, but many more are wanted.

It is not my intention to discuss the financial stringency which has affected not only Canada but practically all nations, more particularly the American continent; it would be a needless waste of time for me to surmise whether it was the Balkan War or the hoarding of gold, or what it was which caused the condition which existed, but now happily passing away. The question for us is: Have we learned a lesson? Have we learned that there is a limit to our borrowing? Have we learned that when we borrow we must pay, and have we learned that if gross extravagance is indulged in poverty will follow?

We have been borrowing by millions, spending by millions, thinking by millions, but have we been wise, careful and cautious in all our expenditures? Will we see to it in the future that not only will our expansion of industries, improvement of cities and towns, expenditures of provinces and of the Dominion itself be carefully scrutinized and considered and not authorized until fully justified, always, however, looking forward to future expansion and growth.

I would, say, however, that while this organization has done and is doing a great work in welding the peoples and provinces, and in uniting the East and West, North and South, yet much remains to be done; not only have industrial problems to be considered and difficulties surmounted, but there remains a still more serious problem, the amalgamation and absorption of the many peoples, races and tongues which will be and are flocking to us. To the members of the Manufacturers Association perhaps more than anyone else, certainly in the cities and towns, devolves the task of looking after the welfare of these people, and doing everything possible for their normal and mental improvement, impressing them with the idea that not only does this Association stand for quality in the output of factories, but also stands for all that is just, honest and upright in the commercial activities of the country, and so impress upon all that it is indeed a great honor to be a citizen of our Dominion and a member of our Empire.

THE FOUR CLASSES OF WORKERS.

(Continued from page 1522.)

ent classes. It is an interchange of ideas and knowledge of each other's aims and works that is going to keep down these antagonisms and to gradually tear them away. So that if you had in your Association the other day a gentleman from the wild and woolly west, right out of the stacks of grain they are growing upon the mighty prairies on which they live, who came down and talked to you good reasonable common sense and you appreciated it, and every one of you felt as if he had done both you and his section of the country good by just coming down to that conference and speaking out his mind, then you pick out one or two of your men just as reasonable and with just as good sense and send them up to the Grain Growers' Association when it next meets and let them talk to them as he talked to you.

No Talk of Division.

But, let us once and for all put our foot right straight down on this idea that there is going to be an Eastern and Western trouble which will imperil our nationality and our unity. That never will take place; first, because we are too sensible; secondly, because our loyalty to our country and our ideals are so strong and so high that it cannot be brought about.

What Manufacturers Should Consider.

The manufacturers of Canada are producers, but in the line of work they have I think to take consideration of two other things,—they have to take into consideration the distribution of the products they make and the markets that they can obtain for the products that they make. Production, distribution and markets, in their conditions to-day, are very different from what production, distribution and markets were, twenty-five, thirty, forty, or fifty years ago. It is the everlasting condition of your business as well as other business that you have to follow the march of events and keep up with the times. Producers, whether they are manufacturers or any others, as much by rule of thumb and no more by intelligent and skilful methods than they did forty or fifty years ago, will find that they will be left in the race. Distribution is entirely different from what it used to be and the maker has got to look towards problems of distribution which affect transportation; they are different from what they have been in the past and so they have to be studied; and the markets, you have to cater for them in a different way.

The Old and New Markets.

I have a recollection as a boy of a not very extended market, but it was a profitable and active one. The producer was a maker of wagons on the corner of three streets in the little village near where I lived. The producer at that time did everything. He made his parts, he ironed his wheels, he painted the bodies—he did everything from the beginning

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to the end, and he did it in one shop, and in the case to which I allude he did it with his own hands. Now, his market was right by him; he didn't have to go far to look for it. The market was easy and local, and the production was easy and local. To-day it is absolutely different. The market is as wide now as Canada and the production is no longer local. It is aggregated, it is massed, and the old wagon shop on the corner has passed almost entirely out from the region of Canada at the present time, and so with a multitude of other businesses.

Home and Foreign.

Now, with reference to market, you have the home market and the foreign market, and I might just take the liberty to say a word with reference to these two. I thoroughly agree with the President that the home market is the most important market for the manufacturer in Canada, but I am bound to say as well that I think manufacturing and industrial life in Canada is imperilled if it does not also fix its attention upon and get its place in the foreign markets. Even in years where you have more than you can do in Canada it is bad policy to shut yourself out from getting your stake and your name and your reputation and your goods into the foreign market, for changes take place in the local market which may make of very great moment to the manufacturing interests of a country that a share of the output of their goods should go to the foreign market. While your home market is a profitable and great one, yet our manufacturing industries must also keep themselves alive to the foreign market and make their place and stake in that foreign market, because the market is world wide in these days and competition is world wide. If you don't seek out a foreign market the foreign producer will seek you out, and he is seeking you out every day, and the only chance for balance is that you should take advantake of whatever foreign market is open to you and so enlarge your borders and lengthen your stakes with reference to the marketing of your product. It is startling in one sense to read that last year this home market was invaded to the extent of over six hundred millions of dollars' worth of goods brought in from outside. That is something stupendous when you look at it as regards figures. It is susceptible of a good deal of explanation when you come to run it out to details and find what all this is spread over, but it is nevertheless something for our manufacturers to think of—that every year hundreds of millions of dollars of foreign goods are sold in this market and compete with you in your home market. That is not a bad thing; within certain proportions I like to see that kind of traffic, but you have a place to conquer here in your own country that gives you a pretty wide margin for your effort, your ability and your skill.

One of the Reasons.

And yet some one will say to me you have an immense importation because you don't give us protection enough. I am not stating that as a plea for more protection. I believe that there are different kinds of protection. There is the protection of the tariff, but there is an even better protection, that is the protection of thorough skill and ability in manufacturing, in the economy of production, in the systematization of work and of manufacturing in this country and in the making of honest and reputable goods. Skill, industry, organization, economy and careful and diligent adaptation to the wants of the market will protect a manufacturer in this way just as well, or almost as well, as will the tariff itself. In conjunction with the tariff it is absolutely necessary, and I for one, though a tariff man, a Protectionist, never wish to see a tariff protection put on to excuse a lazy or inefficient manufacturer.

WESTERN AGRICULTURAL PROBLEMS.

(Continued from page 1523.)

my farm is situated in one of those districts in Saskatchewan which is peculiarly adapted for mixed farming, plenty of shelter, parklike country, dotted with bluffs. Many of you have seen the country, which has plenty of water. Let me tell you that, over a large portion of the prairies which produce the largest quantity of our grain, one of the greatest drawbacks to any kind of farming, with the exception of grain farming is the lack of water. You may not know that on many of our wheat plains the farmer must depend for his water on what he can collect in a pit. Did you ever hear of a man going in for dairying under those conditions? Or did you ever try melting snow in the winter so that your animals might get enough to drink? I have seen it done. I have seen a farmer melting enough snow to water his team of horses that he was going to bring me into town with, and the milk cow would wait behind the corner of the building and as soon as she saw him go for the horses she wanted that water, and being snow water she wanted quite a lot more of it than under any other condition. Those are difficulties which render mixed farming a very difficult thing on a large part of the land which is now producing our finest wheat. The hope of those districts is not mixed farming, as generally understood. It is diversified farming in respect to grain crops, cereal crops and grass crops, and we are doing the best we can to help those people along that line. But, we must not lose sight of the fact that wheat will be for years to come their staple product. In other words, we must not lose sight of the importance of placing the wheat business as such on a profitable basis if at all possible.

Another reason why farmers do not go in more for mixed farming was mentioned in one of your reports which I was very much interested in listening to, the fact of the homestead regulations necessitating more cultivation. There is hope, I understand, that this bar will be removed.

Buy Too Many Implements.

Another handicap lies in the fact that many of our settlers coming into the country, inexperienced, going on a homestead with very little capital, are approached during the early period of their occupancy by men anxious to sell them implements—cream separators—by those anxious to sell them even pianos in some cases—expert salesmen whose business it is to push the sale of their product, men who are willing to extend on behalf of their companies unlimited credit. The homesteader in many cases has come from a country where he never got any credit. When he comes out here, because he is set down on 160 acres of land, everybody wants to sell him goods and give him all kinds of time to pay for them. This has a demoralizing influence. At the same time, let me be perfectly fair to the implement people that are selling the farm implements of cultivation and reaping and allowing them time to pay. They have assisted very materially in the rapid development of Western Canada. But expert salesmanship has produced a deplorable condition. It has loaded the farmer up with more machinery than he can profitably employ. What did we find? We got information and made a very careful and conservative estimate that the farmers of Saskatchewan alone owe the implement companies the enormous sum of thirty-five millions of dollars at least for implements. It is true the farmer is to blame. You can't protect a man against himself. If he is foolish enough to buy it is pretty hard to draft laws to protect him, but at the same time you implement manufacturers have some responsibility to take in connection with selling to inexperienced men machinery which it will take him ten years to pay for in many cases. I have seen men on quarter sections loaded up with traction engines which have afterwards had to be taken back. While it is true that the farmer himself must bear the greatest responsibility for this indiscriminate credit, there is a responsibility which comes back to the man who extends it.

How it Bears on Mixed Farming.

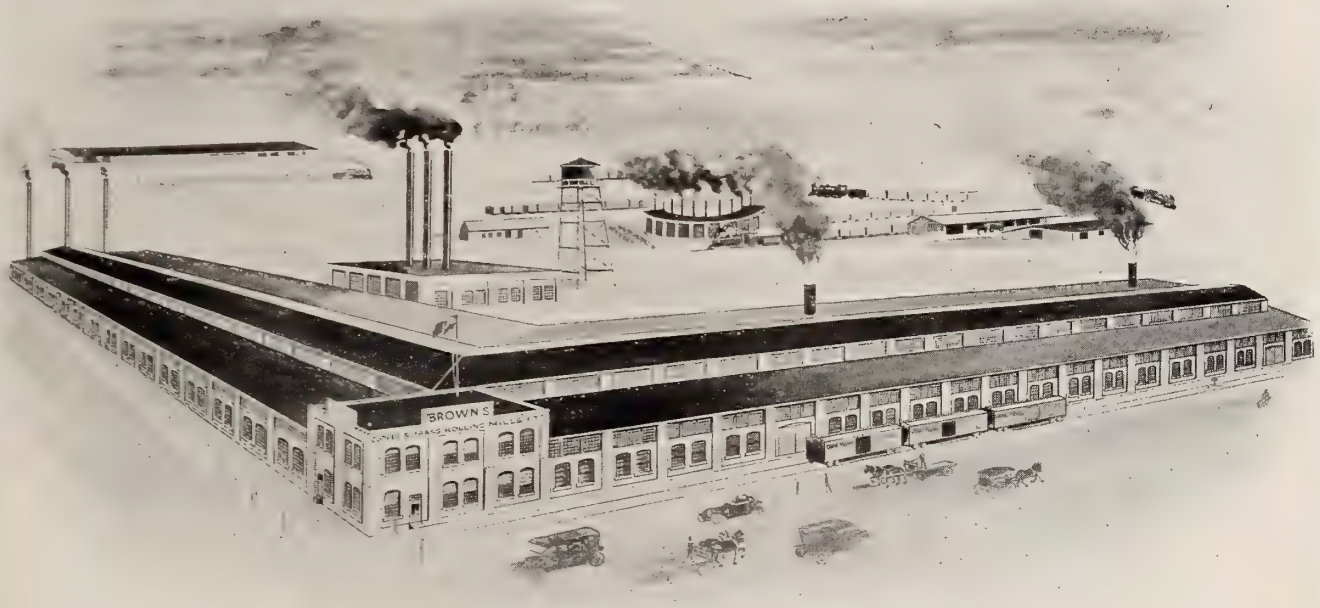
What relation does that bear to the question of mixed farming? Let me tell you. A man buys implements which are designed to cultivate quite a lot of land. He gets credit for them. The fact of owning those implements means he must get the power to work them. He goes into other debt for horses or oxen. Generally oxen are too slow for him. I used to think they were all right and started with them. If every homesteader would begin the same way I think they would get on a lot better with oxen than with horses. He buys these horses very frequently on time, or uses his little bit of capital. The first year on a prairie farm is fraught with very grave danger so far as getting a return is concerned, for much of our prairie land needs years of cultivation before it is capable of retaining enough moisture to raise a crop in case rain does not happen to come at the proper time. In my own part of the country the land is so excessively fertile the tendency of the crop is to keep on growing and get frozen, so that during the first few years on any farm, in spite of the glowing pictures painted by implement salesmen of the number of bushels they are going to get from that or this particular crop, very frequently those roseate dreams are not realized and the man is in debt. He may have acquired from some source a milk cow. What happens? Along comes an individual very different from the expert salesman. Some have described them as expert bloodsuckers. Their business is to collect debts. Every man who has to collect debts has an unpleasant business and, generally speaking, has my sympathy, but I have very little sympathy for the collector of the implement company because he is not collecting his own debt. He comes to the man who has gathered around him a few horses, a lot of machinery which is not paid for, a hog or two, a cow or two, and this farmer by reason of some of the circumstances I have referred to is unable to meet the note. What happens? They must have security and that person takes a chattel mortgage on the horses and cattle and everything in sight. That is not the trouble. Once a debt has been incurred it should be paid. But, we should start back at the beginning and we should try to prevent the extension of this indiscriminate credit. We can minimize it and by minimizing it we will be promoting the success of mixed farming in the West.

Low Prices for Farm Produce.

There is another reason why we don't go in for mixed farming in the West, why we prefer to grow wheat principally. Experience has shown us that it is the one thing that we produce for which we can depend on getting a fairly stable price. It is a world commodity. We can always forecast months ahead freight rates and incidental conditions affecting the marketing of our wheat. Now, what is the case with respect to mixed farm products? The women folk around the farm have made butter and taken it to town and traded it with the storekeeper for sugar in the homestead days at eight cents a pound. I have sold and my neighbors have sold, beef cattle on the hoof for two cents and hogs for three cents a pound. What is the reason? The reason is that the home market right at home is small. During the absence of any of these articles I have mentioned in the home market prices go away up and immediately farmers will start raising this particular class of product and down they will go. You will see a variation in the price of butter in Saskatchewan at country points in the summer from eight cents, in the winter as high as forty-one cents, thus discouraging the man thinking

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of going in for mixed farming. The reason again is our geographical situation with respect to other markets. It costs an awful lot to bring the product of the mixed farm to any other market.

What are we doing in Saskatchewan now to help solve this problem? Let me say that because I am laying before you a state of things that looks bad it doesn't mean that the people in Saskatchewan do not believe that they have the country of the future. They have not the slightest doubt of it. But we have problems and there is no sense in calling a man a "knocker" who stands up and faces the problems. The day of senseless "boosting" in the West is past, the day of calmly facing the problem, such as the economic problems of our geographical position is to hand, and we are attempting to face them. In connection with the cost of grain and exporting it we have established a Farmers' Company, of which I am at the present time manager. It was organized some three years ago. There are now 16,000 farmer shareholders, who are trying to reduce the amount the farmer must pay the middleman in connection with the handling of grain. We are trying to do away with the necessity for one of them at that end. We have at the present time operating in Saskatchewan over two hundred elevators at country points with a total capacity of over six and one-half million bushels, and we handled the last year's crop of twenty million bushels in the Farmers' Company. This is resulting in a small saving to the farmer all along. We intend to go further as soon as the company acquires financial strength. We want to follow that grain along its channel to the country which ultimately uses it, and where we can perform a service more economical along that route we intend to do it. We want to grow gently and steadily, conservatively and safely, but that is our object, economizing so far as possible along the route of the grain we produce.

Co-operative Creameries.

In connection with mixed farming we have established a system of co-operative creameries. There are now I think some fifteen of them in existence at various points in the Province. Arrangements have been made with the railway companies for farmers at points distant from the creameries to ship their cream. The cream is tested. The operator is appointed by the Government and has to pass a proper examination. The Government administers the thing on behalf of the shareholders. That has been very successful and it has helped to overcome, and will in the future still further help to overcome, that difficulty I mention in connection with the instability of the price of mixed farm products. The object is to render the price of butter and cream to the farmers more stable and, at the same time, to supply the consumer with an article that has the Government stamp on it at a fair price.

We have undertaken to deal with the ravages caused by hail. We have a municipal hail insurance scheme in which all municipalities who care to enter are banded together in order to protect the farmer in the community from loss by hail. The revenue is derived from a tax on the land. It has only been in operation one year. There is some criticism in connection with it, but the fact that it paid out over $800,000 in hail losses last year at least shows it has a place to fill. It may need some revision in the future, but at any rate the principle appears to be sound, judging by the results.

Reducing Cost of Production.

Last year we took another forward step. You remember I mentioned a little while ago that our cost of production had gone up a little over twelve per cent. The elements entering into production have become more costly, labor and so forth. Along that line we have thought we might effect economies in buying those things which the farmer must purchase. We

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have to recognize very often that a large portion of the cost to the farmer of any article, and particularly machinery, is made up of the cost of the organization which is distributing it and collecting the money from him afterwards. In order to overcome, if possible, some of the difficulties arising from that source we persuaded our Provincial Government to pass a Co-operative Associations' Act—not a retail Co-operative Associations' Act—not to do a retail business along any line, but in order to empower the farmers in any community to band themselves together under a legal statute giving them a legal standing in order that they might bulk their orders for such commodities as could be purchased in carload lots. Now, that legislation went through. I forget to mention, in that connection, all business must be done for cash. They are not allowed to contract any debts at all. The day of cash business is at hand in Western Canada. They are able to purchase in carload lots only. There are some commodities of which the farmer is practically a wholesale purchaser, and in connection with those commodities we want to get back nearer to the manufacturer of the article if we possibly can. That is the object of the Co-operative Associations Act. It has taken hold rapidly. Many of the farmers, before the Act went through, in fact for years, have been doing what we term collective buying. There were difficulties in connection with it because they had no legal status. Under the Co-operative Associations Act they have legal status and are enabled to do business in a business way. Over fifty of these have been formed and incorporated. The Executive of our Grain Growers' Association in Saskatchewan is empowered by the Legislature to act as commission broker for these various societies so that the orders of the societies may be grouped in the same way and in the same manner as the orders of the individuals within the society are grouped.

Advice for the C. M. A.

I just want to make a few suggestions to you in the kindliest spirit with reference to what I think the Canadian Manufacturers Association can do to help us. I referred to the problem connected with the cost of transporting our products to their ultimate market. The Manufacturers Association, as I have discovered from listening to your discussions, has in its employ certain experts. The Grain Growers' Association has not. You are down here practically at the

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seat of trouble, practically at the seat of the greatest expense in the handling of our grain. I refer now to the cost of freighting on the Lakes and on the River up to Montreal, the number of times grain has to be transferred and the great increase in that particular cost that has taken place within the last few years, and also the question of ocean transportation. Right there let me call your attention to the fact, gentlemen, that you are interested in a "made in Canada" movement. I understand that is a very good thing, a great object. Are you also interested in having the products of Canada marketed as far as possible through Canadian channels? If so, it is of great importance to you to know that a larger and larger volume of our grain is going via American ports from Fort William through Buffalo via New York. Conditions exist there which the exporter of grain must take into account of course. He does the thing as you do. He is buying something, he is competing with somebody else, he is buying as cheaply as he can, and there is an important question there which is important to the manufacturers of Canada in connection with their Western market, that the producer of wheat or of any form of product should get as cheap as possible transportation for that product from the farm to the ultimate consumer. In addition to that there is the patriotic motive. I mentioned the fact that our produce should be handled through Canadian channels. We have advocated for years the expenditure of further money upon our great natural waterways. It is true millions have been expended and much is made of the fact, but when one goes over to Europe one sees there that practically no grain or no bulk products of any description are handled by railway. All are moved by canal —for instance, the River Rheine; compared with our rivers it is only a ditch. They have spent millions on it with the result that it is one of the finest water highways in the world and the bulk of traffic carried over it at cheap rates is staggering. I am not running down the railways. The railways have done a good deal for Western Canada. If there is one freight rate that the Western farmer makes no complaint about, it is the bulk freight rate on wheat from interior points to Fort William. But the rates for the lakes show great increases in the cost of transfer from boat to rail and so forth. Ocean rates have gone up sky high within the last few years. That is a consideration for every Canadian. You can help us in that. At all events you can evince a desire to join with us and work together for better conditions affecting the transportation of our product. That is not too much to ask you I am sure. You can further help us by discouraging, so far as lies in your power as an association, that indiscriminate credit which, while it has done so much for Western Canada, has at the same time been Western Canada's curse. We can stand together and surely effect some improvement in connection with this matter.

The Tariff.

Now I come to the most ticklish question of all, on which a great division of opinion exists, the tariff. I am wise enough, I think, not to attempt to argue with you gentlemen on tariff questions. I think one of your members expressed the situation to me about as clearly as it could be expressed just yesterday. He said, the situation is this, the Canadian Manufacturers Association believes it needs protection, the West is not willing to pay it. Now that pretty well expresses the situation at the present time. You can, however, help the situation very materially when you go to Ottawa, or when your representatives go to Ottawa, to make tariff representations by having very clearly in mind the effect that those amendments you propose are going to have on the man out West who is subjected to quite sufficient handicaps in transportation and other ways already.

You will also, I am sure, bear in mind the experience of the United States. A great revulsion has taken place

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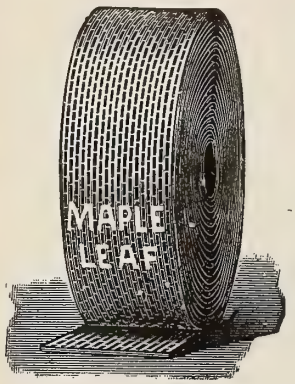
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there. Talking among your members they tell me the end is not yet. Beware lest a similar experience overtake you as manufacturers. I don't doubt you have extremists in your ranks who would build the tariff as high as Haman's gallows. On the other hand, I know from talking with a number of your members that they are very reasonable men, they might almost be farmers. If you, during your time of power, for at the present time the East has the power in that connection, prove unreasonable or allow the West to think you are unreasonable in connection with tariff matters, remember this, that there is a strong Free Trade sentiment growing in the West and being carefully fomented there. Every newcomer comes into contact with it and in nine cases out of every ten is imbued with it. Remember that the population of Canada in the future is going to be there. Remember that it will not be long until the voting power is there. It would be well for Canadian manufacturers to bear in mind the future in connection with any representations they may wish to make on the tariff at present or the experience of the United States may be duplicated in Canada.

In the experience of practically every protected country there has been a tendency on the part of the protected to desire more protection and the tendency to lean on the protection that they have instead of paying due regard to the reduction of costs and so forth in connection with manufacture. I am not making the claim that you are subject to those disabilities now, but if any dry rot creeps into this Association that will be the particular form of it. In that case, allowing for the fact that the population is going West and that there is room there for lots of people and that every action you take on tariff matters is studied with care, often misconstrued and misrepresented in the West, I will admit, a prejudice will be built up against you that may work, I won't say a revolution, I might say a tariff revolution some day. That can be overcome by a reasonableness on your part to begin with and a reasonableness on ours to end with. I am trying to talk to you as reasonable men. You can't have two men arguing 2,000 miles apart and get them to compromise; they have to mix. Remember that we have our side, out West, of this question. You may have thought I would have horns and a tail and would be a red-headed agitator. I hope I have convinced you I am not that kind. I can assure you the number of that kind in the West is remarkably small. It is true if any such individual does make a statement it does get into the papers. Anything out of the ordinary seems to appeal to our friends in these days, and yet while we do have extremists the majority of our men are reasonable and I sincerely hope you will get to know us. You manufacturers are in a better position to get to know us than we are to get to know you as farmers. What I have told you this afternoon will show you the farmer has got to stick with his nose pretty close to the grindstone in these days. They are not all alike. There are prosperous farmers and communities. You on your part look to the West as one of your greatest markets and in connection with that it should be necessary for you as manufacturers to come out West and get acquainted with the people who are your customers. If you get acquainted with them I am satisfied that a better feeling will result and there will not be the slightest danger of a disunited Canada.

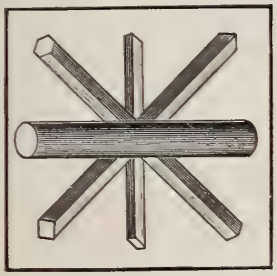
It appears that creditors of the Rimouski Fire Insurance Company, which went into liquidation two months ago, are likely to suffer heavily. A preliminary estimate of assets and liabilities by the liquidator (Mr. Theodore Meunier, of Montreal), shows that the latter are $327,031; while the assets which can be realized on are only about one-half the amount, there being a deficit of about of $150,000. In other words, creditors' prospects are that they will do well if they get fifty cents on the dollar.



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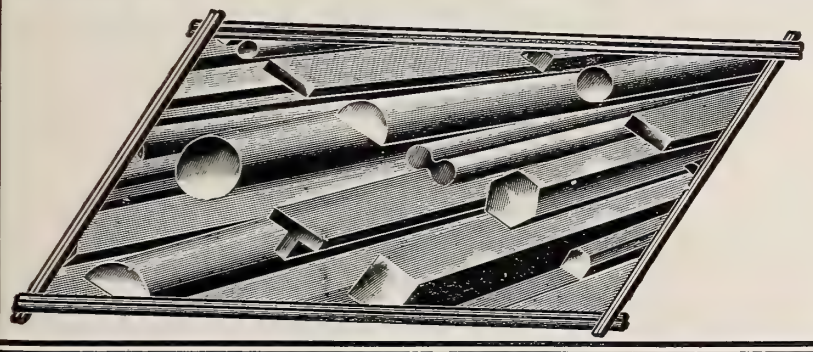
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THREE MEN.

(*Continued from page* 1524.)

The rain conveyed no especial significance to the manufacturer except that his grandchildren would be disappointed: They were to have gone on a picnic next day. He hoped vaguely that it would not continue. The merchant, on the other hand, frowned. "The cash registers in a good many stores will reflect this rain" he thought, "It will lap thirty per cent. off ordinary Saturday night sales."

* * *

Something in the air of the country made him also reminiscent. He too had been born here—in the days when the town was rich and prosperous—before the slump had come. He and two others had been companions in a famous hickory nut raid executed against old Squire Smith's woods. It was a year or two later that the old peddler died on his rector's doorstep—died with the pack still on his shoulders. In the settling of the peddler's estate the law, now in early manhood, secured the pack and took up the round where the peddler had left it. He became a merchant, one of that early Canadian variety, which only men of years can recall, quaint wanderers up and down the sidelines and the concession lines, carrying no one knew what not, from silk dresses to coarse thread, from muslin to lace. The young man trudged the country-side for years and then he, like the farmer, went West.

At Fort Garry he bought a cart and a team of oxen and began another kind of peddling. He collected wheat and other farm products from the settlers round about the Red River settlement, and carted it to the United States where he emptied the export commodity, and secured clothing, small luxuries, tools and weapons. What he owed for wheat he paid in imported merchandise. He had his regular clients. He made a fair profit and hoarded it. After a time, when the currents of trade changed, he became a peddler between Fort Garry and Edmonton, driving day after day on his ox-cart from dawn till sunset over the never-changing prairie. It was a bleak and lonely life.

Then he met a sturdy woman, married her, and to make a home sold the cart and opened a store in opposition to the Great Company, at a certain western point. Competition was severe. He handled at first only staples, but when the C.P.R. was completed he found himself dealing with everchanging fashions and fads in merchandise. He kept pace. He watched the margin of profit carefully, so that it should not be too narrow for safety nor too wide for competition. Once he was burned out by fire—without insurance. He had two children and both died. He speculated with part of his capital and lost. He gave credit to men who afterward failed to pay. Yet in the end he established what was now a great retail store in a western city.

His, too, had been a bitter struggle. He recalled the settlers whose crops had failed and who came to him for credit: how some had made good the debt, vindicating his judgment of human nature, and others had been hailed out or rained out again, or were dishonest. One year he had himself been compelled to ask for extended credit from the eastern wholesalers. It was granted, but because that wholesale had given credit elsewhere not wisely but too well, it collapsed one day; the mills it bought from were closed; and one hundred men in remote Ontario were thrown out of work.

It had been an intensely interesting struggle. He could now look back with a sort of stern satisfaction at the times when he had escaped financial calamity by a mere hair's breadth. He recalled his first lesson in the psychology of salesmanship, a thing he had not known in his younger days. He had purchased a line of goods which no one seemed to use. They stood on his shelves unsold—an ugly assortment of heavy majolica jugs. By accident, while having the shelves

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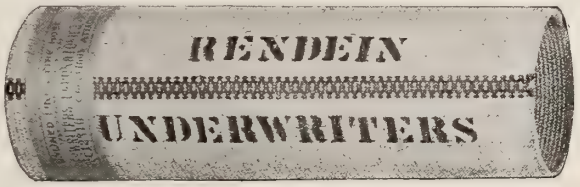
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dusted, the jugs were placed prominently on the counter. A woman asked the name of the ware—he had almost forgotten it. The name interested her. She wanted to know how it was spelled—and she bought a jug. For his own satisfaction he had a card printed advertising "Majolica Ware," with the result that the goods which nobody liked when they were nameless, were soon sold. Judgment in buying and skill in display and salesmanship finally brought him a fairly full measure of success. But it had been a bitter fight. The memory of the victory made him swagger as he paced the cramped waiting-room.

* * *

The third man sauntered out on the platform. Like the other two, his thoughts, as he breathed the air of this, his native township, were of himself and his struggle. Like them, he thought his struggle and the struggle of people in his class was the only kind of real experience in the world. He envied the farmer his healthy work. He envied the merchant his orderly shelves—all the goods under his hand—nothing to do but wait for customers! He was, himself, a manufacturer. He was accustomed to the throbs of engines under his office floor, the flapping of belts, the purr and whirr of light machinery and the chatter of typewriting machines. It was in this very village—then a town—that he had first learned to handle wool. He had been taken on as an assistant, or sort of errand boy to the man who owned the mill. He had stood beside him as the farmers brought in the shearings, and received made-up goods in exchange. It was a slow and laborious mill. The water-wheel was old and did not lie true in its bearings so that it heaved and clanked and shook the whole crazy structure so long as the head-gate sluices were open. In flood time the mill shut down so that the hands might all help to push the ice-cakes over the dam—and so save it from the rage of the swollen river. The story of those days ran through his mind like a reel of moving pictures on a screen.

Then a bank had called upon him—he was assistant manager then—to take temporary charge of a mill in a large city. The mill had borrowed heavily and was about to be closed unless the bank could find more efficient management. Certain of his qualities had been spoken of to the bank. He was made an attractive offer and accepted, little suspecting that it was chiefly the flattery of the thing that had led him to accept. To a certain extent he made a success of the new mill. He analyzed its departments, its costs, its revenues, and he worked out a crude sort of efficiency scheme of his own. The mill was slowly beginning to pay back the money it owed the bank.

But suddenly there came a new move on the part of the foreign woolen mills. They determined to capture the Canadian market at one stroke. They cut prices and despatched their keenest salesmen to gather the orders. It was a time of crisis for the mill and its erstwhile head. The bank was nervous. It wanted to drop the fight—to back out; it was weary of the game.

This was when the fighting nature of the manager took fire. There was only one way to fight the foreigners, and that was by some sort of consolidation. There were too many little mills, each with its own high cost of operation, and each selling against the others. The manager scraped together what funds he had and could borrow and carried them to the bank. These he offered to pledge against the old debt of the mill, if in turn the bank would help in his newer and larger scheme.

Out there, on the station platform, his collar turned up against the light rain, he reconstructed the scene with the bank's chief officers. For twenty-four hours he had pondered the matter; weighing the scheme, weighing all the factors for success or for failure; and marshalling all his arguments so as to have them in their most telling form. It was his oppor-

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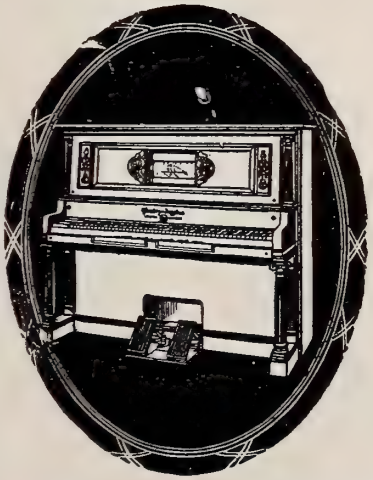
—REFERENCES—

Victoria, B.C.—Metropolitan Methodist Church
Vancouver, B.C.—St. Andrew's Presbyterian Church
Vancouver, B.C.—First Congregational Church
Nelson, B.C.—Methodist Church
Calgary, Alta.—Knox Presbyterian Church
Edmonton, Alta.—First Presbyterian Church
Saskatoon, Alta.—Knox Church
Regina, Sask.—Methodist Church
Winnipeg, Man.—Grace Church
Winnipeg, Man.—Westminster Church
Stratford, Ont.—St. James Episcopal Church
Brantford, Ont.—Brant Ave. Methodist Church
Hamilton, Ont.—St. Paul's Church
Toronto, Ont.—St. Paul's Anglican Church, (The Largest in Canada)
Toronto, Ont.—St. Andrew's Church
Toronto, Ont.—Convocation Hall (University)
Toronto, Ont.—Conservatory of Music
Port Hope, Ont.—St. Paul's Church
Brockville, Ont.—First Presbyterian Church
Ottawa, Ont.—St. Andrew's Church
Montreal, Que.—Notre-Dame Church
Montreal, Que.—St. George's Church (Church of England)
Montreal, Que. — Emmanuel Congregational Church
Quebec, Que.—Holy Trinity Cathedral
Quebec, Que.—Chalmers Church
Fredericton, N.B.—Cathedral (Anglican)
St. John, N.B.—Trinity Church
Halifax, N.S.—All Saints Cathedral
Charlottetown, P.E.I.—Baptist Church
Sydney, C.B.—St. Andrew's Church
Dawson City, Yukon—R.C. Cathedral
New York City—St. Francis Xavier Church
Syracuse, N.Y.—First Baptist Church
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tunity to make a forlorn hope a success and to keep the mill open.

He won half a victory from the bank. The bank would see him so far and no farther. It had never found dreams or hopes to be negotiable at anything like par, but it would advance a little, on the security of everything the optimist owned. On that basis he proceeded. He brought a number of the other mill owners together—some of those that had not already been forced out of business, and they formed a company, a league in defense against the foreign invaders. Impracticable people exclaimed with glee at the fallen prices of the goods and proclaimed the blessings of competition—except in those quarters where the mills had shut down and the operatives were living on charity. It was not the farmers who supported the idea of foreign competition *then*: they missed the convenient market for their wool, and the cash which the operatives had once expended in the market-place for butter, eggs and potatoes.

Could anybody really paint the picture of the first board meeting of the new company? He remembered the faces of his confreres—mostly dejected, because their hope was small. They passed a resolution with the other mill men to organize a deputation to Ottawa to ask tariff protection.

Thinking of tariff, the manufacturer's face took on a bitter expression. He thought not only of his own fight, but of the struggles of his fellow manufacturers in practically every branch of Canadian industry. More protection might have saved the depression Canada suffered at that time, might have made Canadian industries stronger, and Canadian themselves more self-reliant, seeing they could make their own goods and had a great variety of outlets for their own activity. He had succeeded moderately. He wondered somehow if, after all, the reward had been half so great as he had supposed it would be. His chief satisfaction remained, after all, in two things: the knowledge that he had made a good fight; for two things: his family and his workers.

* * *

The well-dressed youth, who earlier in the evening had roused the ire of the three travellers, turned out to be a poet: one of the modern kind. They met him aboard the train shortly after the three elders had recognized one another in the light of the smoking compartment. They were arguing concerning the general merits of Free Trade and Protection, and the merchant was complaining of the laws governing the collection of debts from delinquent debtors, when the poet interrupted:

"See, gentlemen," he said, "you talk to no end whatever. Let me, a poet, having no real place in the scheme of things as you regard it, point out the futility of your discussion. You do not argue—you accuse one another. You, Farmer, complain that the Manufacturer is getting rich at your expense. You protest at the size of his profits and yet you admit you don't know what those profits are. You, Manufacturer, bring counter accusations against the Farmer. Both accuse the Merchant of eating your profits. And you, Middleman, have other complaints against them. You deal in complaints, charges and counter-charges, but not in argument."

"What has a Poet to do with this sort of thing?" grumbled the Merchant, while the other three scowled their approval of his remark.

"Very little," admitted the youth, "except to say that if you, instead of pursuing the course you now pursue, made a study of the relationship which exists between the three of you, if instead of your troubles you considered that all three of you are one—and interdependent for success, one upon the other; and if instead of contemplating always your immediate ends you considered your relation to the nation as a whole—then your discussion would carry you somewhere."

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"What do we owe the merchant?"

"The same you owe the railway builder and the steamship man. He makes exchange possible between you. He assists in directing the movement of the products which between you are turned out."

"And I?" asked the Merchant.

"You. For all your courage, judgment and shrewdness—what could you exchange if these men were not here to produce goods for your counters?"

"Then you," they retorted in chorus, "you are a parasite?"

"Parasite! Rather, a minister to the spirit. You were quarrelling when I came."

THE INDUSTRIAL MUSEUM.

(*Continued from page* 1526.)

ornaments we were producing on our things, the way we were ornamenting everything a few years ago in this country was essentially bad and the public got thoroughly well tired of it. Now, I think there is going to come a reaction from that, and from that exceedingly straight mission furniture; we will want things a little more joyous. The point is, are we going to be able to train our men so that our designers will know what ornament is? And I find it the most difficult thing to do either in words or on paper. When some students were brought in to the museum for a little lecture awhile ago, they were shown the development of geometric design, as illustrated on early pottery; after I had shown them, the teacher of design said: "That is worth more than a whole course in the history of ornament."

The Beginning of Ornaments.

Now, we have one series there which shows the ornaments of the cliff-dwellers in New Mexico. As you know, all ornament began as a prayer, and usually a prayer upon a pot. You are all well acquainted with the Greek fret: Put an eagle head to head and tail to tail. If you do that upon a pot and keep drawing them frequently enough you will get down to a fret. This was the thunder bird which they put on their pots as a prayer that they might get rain; when they were making pots they were putting on every prayer they could think of; they were drawing images of the thunder bird in the hope that he would come and hover around them; they were putting lightning and clouds on that the storm might come. In cases like that we are able to take up a system of things and reduce them right down to a geometric ornament which came from a deepfelt desire or prayer on the part of the people who began it; and then with frequent copying, particularly on pottery, where you have to make it meet, for if you once start decorating a pot you have got to keep turning it around till you get to the other side), slowly it becomes a recognized ornament.

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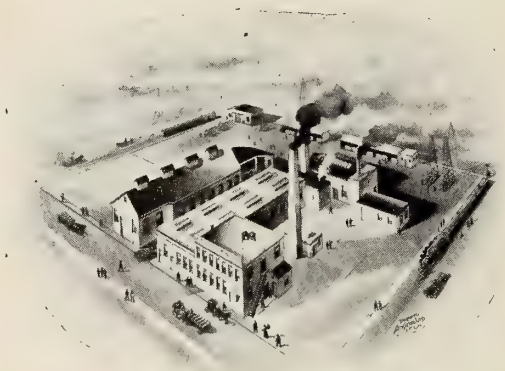
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for prayer but for joyous expression. We don't like the thing too plain, we want a little more joyousness about it. If we are going to lead in the manufacture of what I might call the permanent objects, that is, things which do not fluctuate with the change of style, we have to grow in this country a series of designers whom you can take into the factory to provide you with designs of things which will last, and those designs have got to fit. You know perfectly well a man with a plug hat and frock coat looks all right. You put him in to trunk hose and flowing robes and put a plug hat on him and it don't fit at all. Those things do not fit, it is a little hard to say why. There is a fitness of things which it is extremely difficult to explain but which, if one is educated at all in designs is apparent at once.

I was sitting one evening chatting with Sir Laurence Alma Tadema in his studio; the light was slowly failing and it became almost dark. Suddenly the great painter stopped talking and pointed across the studio to a copy of an ancient Egyptian chair of dark brown wood inlaid with ivory. He said, "Can you see that chair quite clearly?" I answered "yes, quite clearly." "Now," he said, "can you see one particle of the wood of that chair?" When I had looked carefully, I had to say that I could not. "Well," he said, "that is a perfect piece, a perfect example of the proper use of inlay; in a hot climate the palace must be kept dark and cool; you don't want to break your shins or destroy the furniture because you can't see it, so the salient points are picked out with bits of white ivory, in order that you may see exactly what kind of chair it is. Now, look at that closely, and you'll see that only those parts which carry the ideas of the general construction are shown to you by the ivory. It is not put in to be pretty."
ivory. It is not put in to be pretty." Now, this is an example of true ornamentation, where the ornament adds by being protective.

This is the thing that I think you will have to look to rather more than anything else that I know of, to see that you can grow here a set of designers who can provide you with the right ornamentation for things, because the time is coming when too easy plain material will be swept away and more ornament will be demanded. I have been talking to a number of architects and they all agree we are coming into a much more ornamental period than we have been in for some time and the people who get the trade are the ones who produce the article that is right.

Development of the Modern.

We have another part of the museum and that shows the development of our great modern things. We have a very large exhibit of velvets and textiles, silks and brocades and a very long series of the development of pottery practically up to the willow pattern. That is an industry that has not gone very far in this country but which will come very rapidly and I expect before long it will be a very important factor in this association. We have a great deal of porcelain, iron work and wood carvings and woodwork and we are building up the best furniture section we can get. Unfortunately it is rather small at present; the furniture is not easy to get and we have not so far been able to get enough money to get what we need. We are trying to teach the mechanic and the draughtsmen. The mechanic comes a great deal, and we shall have Canadian draughtsmen as far as possible taught right in the museum itself. They are being brought from the technical school and from the College of Art to be taught right in the museum. What we want is to show how the problems have been tackled by the people who tackled them

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originally, that is, before these came that rule of thumb method of doing things which is so commonly wrong. The man who attacks any of the problems directly, usually puts a good deal of brains into it and that is where the charm lies in so much of the early work. Don't think for one moment, speaking of furniture, that people pay large prices for old furniture for the sentimental side of it, it is for the charm. There is a charm in individual work which comes out of fresh brains when the man is feeling his way bit by bit; the set thing comes when he knows all about the game and gets careless.

I spoke a little while ago of the question of decoration and decorations that will not suit. There is a story I am reminded of concerning types of decoration that won't suit. Burne-Jones, who was one of the greatest designers who ever lived, and Luke Ionides went one time to the old aquarium to see a tatooed lady who was exhibited there. She had on the minimum clothes that English law will allow; she was tatooed all over. Her husband was a regular old down eastern show man. He had her on a swing-around office chair, and he started his patter by saying, "Now, ladies and gentlemen, you have before you the most remarkable piece of tatooing art that has ever been exhibited to the British public. Gentlemen and ladies, upon the lady's left knee you will see the arms of the United States with their motto, and on the lady's right knee the arms of England with her motto; this is to show the uniformity of the great Anglo-Saxon peoples. Now, ladies and gentlemen, I am going to show you the most remarkable thing that has ever been

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exhibited in the tatooing art. As I swing around the chair you will see upon the lady's back the Last Supper by Leonard da Vinci. Five years afterwards these same gentlemen saw her again advertised and they went, and there was the same patter about the knees, the same introduction, but when the swung the lady around to show Leonardo's masterpiece they found she had become very stout and that all the saints had spread. I can't give you any better illustration of the way design should not be done than that. If it is on an elastic substance it must not be portraiture. But, when one comes to go into it carefully the question of our own designs leaves a tremendous amount to be desired. I understand from men to whom I talk the difficulty of getting designers is perfectly dreadful; and that the bulk of so-called designers simply copy from a few books which they do not understand.

I have been talking very largely about the things which are permanent. There is an enromous other class of work, where in order to get the trade you have to follow quickly the designs of the moment. This time it is Persian, this time it is Balkan, another time Indian, another time Chinese. With all of these things, such as certain kinds of dress materials, or made up clothing or designs of clothing, you have to be able to follow out quicky whatever is perhaps dictated from Paris as the latest craze. Now, for that there is absolute need of a storehouse of designs in some place where you can send your men a comparatively quick railway or street car journey and say, "Here, get in and get those designs as quick as you can and get them right." Now, this can be done and we are doing it so that the designs may be seen in their original material, because when transefrred to paper and into books you lose the sense of the material. A design for wood is not a design for calico. You want to be able to drill that in quickly to the designer who may come in to the museum asking for one of the staff to explain to him certain of the designs. We are trying to have it so that a designer may come in and have the services of a member of the staff to explain to him things of this kind. We have a collection of lace which is one of the best in the world. There we have designs by the score made by the greatest designers of Europe in the 17th and 18th centuries, because they were employed to design pieces of lace which were going to cost thousands of dollars, the manufacturers were quite willing to give a pretty high price to the men who made the designs, and so one has a storehouse of ready-made designs in their original material. This will, I hope, serve to provide the store house which your draughtsmen will be able to use quickly both for permanent things and also for those things which have to quickly change their style in order that you may keep abreast of the trade.

Now, as I said before we are trying to make this a question for the country. The museum is located in Toronto. We are trying, however, not to keep ourselves stewing in our own juice there, but to make it as wide as possible that we may send loan collections her and there and we will be accessible to all of the manufacturers of this country for advice on the question of design, for photographs which we will, I hope, amass in considerable numbers very quickly, and for any help which we can give in any direction. I hope that we may succeed in getting a little more government help than we have. So far I am sorry to say practically the whole of this collection has been purchased from money subscribed by private individuals mostly in Toronto and the neighborhood. I hope we shall be able to get enough Government support to be able to carry out branches which do not appeal particularly to the private individual and in that way we will cover the field as well as possible. I thank you very much for listening so patiently.

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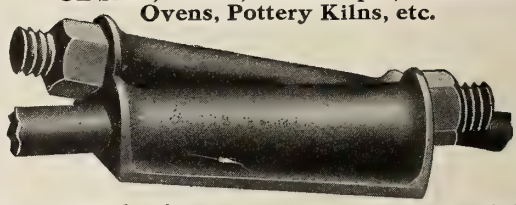
(Continued from page 1528.)

brought out from each transformer bank for the neutral of a 115-230 volt 3-wire Direct Current system.

The switchboard for the control and distribution of this power will consist of a main board of twenty-five Blue Vermont Marble panels on the turbine room floor. On this board will be mounted the meters for measurements of outputs of generators and loads on the feeders, also the Direct Current bus-bars both for exciters and Direct Current factory load, and control equipment for twenty-five solenoid operated feeder switches for Alternating Current distribution. These switches will be mounted on Monson slate panels on a mezzanine floor under the turbine room floor. The Alternating Current 440-volt bus-bars and Generator switches will also be located here.

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W. C. McGHIE, Chairman of the Board

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ROBERT HUNGERFORD, Parliament Buildings, Toronto.
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H. J. TUTT, 13 Enderby Road East, Toronto.

Persons having business with any of the Inspectors will find them at the above address. HON. JAS. S. DUFF, Minister of Agriculture. Phone Main 5800.

LABOUR ORGANIZATION IN CANADA, 1913.

Activities of the Unions and New Features Which Have Been Developed.

The third annual report on Labour Organization in Canada, covering the year 1913, has been issued by the Department of Labour. At the close of 1913 the numerical strength of organized labour in Canada stood approximately at 176,000, an increase of nearly 16,000 over the figures at the close of 1912. The estimated membership for each of the three years during which reports on organized labour in Canada have been issued has been as follows:

1911	133,132
1912	160,120
1913	175,799

These figures show an increase in membership of over forty thousand during the two years 1912 and 1913, and suggest a quite remarkable development during so brief a period. The figures indicate that the growth of union membership has been fairly distributed as between international bodies and those not international in character. The bulk of Canadian trades union membership is attached to international organizations. Of the total numerical strength of organized labour for 1913, the membership owing allegiance to international organizations reached the large proportions of 149,577, leaving for all other organized bodies a membership of 26,222. There were in Canada at the close of 1913, 2,017 local trade union branches of all classes, 1,792 having international affiliation, 199 of a non-international character and 34 independent local bodies. These figures show an increase of 154 in international local union branches, a decrease of 26 in non-international and an increase of six in independent bodies. International organizations having in Canada at the end of 1913 one or more local branches, numbered 101, an increase of two during the year. There are thirteen non-international organizing bodies in the Dominion, an increase of three as compared with 1912.

Organized Labour in Canadian Cities.

The relative strength of organized labour in Canadian cities is usually a point of some interest. The accompanying statement gives particulars as to twenty-six cities having each more than twenty trade union branches, the total for the cities named being 1,121. Of this number 654 report a membership which totals 88,037; or somewhat over 50 per cent. of the total trades union membership of the Dominion. The membership of the non-reporting units is a somewhat conjectural quantity, but information before the Department gathered from various sources permits it to be placed approximately at 25,328, giving a total trades union membership for the 26 cities named of 113,365.

City.	Number of unions in locality.	Number of unions reporting membership.	Number of members reported.	Estimated membership of all unions.
Toronto	131	79	18,184	20,992
Montreal	121	68	15,694	18,556
Winnipeg	82	48	8,103	9,999
Vancouver	81	47	7,502	9,338
Hamilton	60	36	3,847	5,143
Ottawa	56	31	3,089	4,439
Victoria	47	28	2,581	3,607
London	45	28	2,418	3,336
Calgary	44	27	3,092	4,010
Edmonton	43	27	2,781	3,645
Quebec	41	22	4,890	5,916

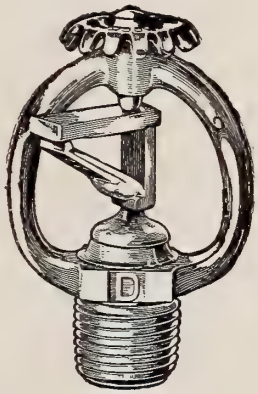
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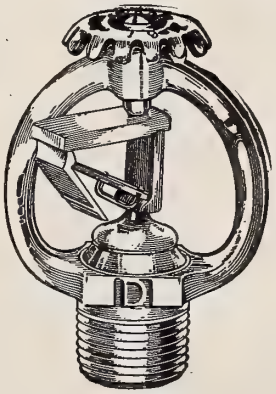


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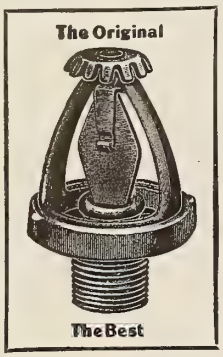
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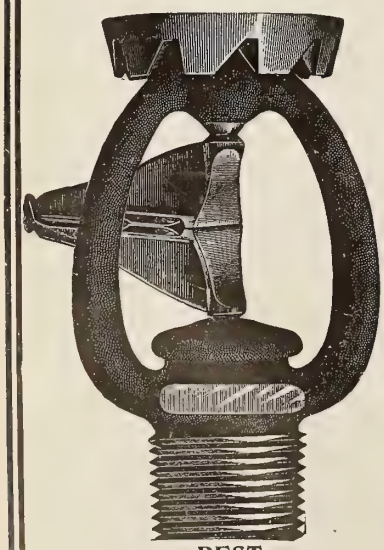


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St. John	32	17	1,337	2,147
Fort William	31	15	997	1,861
Saskatoon	29	18	1,063	1,657
St. Thomas	26	16	1,524	2,064
Brandon	26	11	456	1,266
Lethbridge	25	14	1,339	1,933
Halifax	24	14	1,239	1,779
Moose Jaw	24	16	1,420	1,852
Port Arthur	23	13	518	1,058
Regina	23	13	900	1,440
Moncton	22	15	1,998	2,376
Nelson	22	10	319	967
Medicine Hat	21	13	1,049	1,481
New Westminster	21	15	1,015	1,339
Windsor	21	13	722	1,154
Total	1,121	654	88,037	113,365

Trades Unionism in Many Lands.

The report also contains a statement showing the standing in trade unionism of the chief industrial nations for the years 1911 and 1912, with figures showing the percentage of union membership to total population, as indicated in the following table:

Country.	Union membership. 1911.	1912.	Population	Percentage of union membership to total population, 1912.
Great Britain	3,010,346	3,813,973	45,365,599	8.407
France	1,029,238	.....	39,601,509	.....
Belgium	92,735	231,805	7,516,730	3.083
The Netherlands	153,689	169,144	5,945,155	2.845
Denmark	128,224	139,012	2,757,076	5.042
Sweden	116,500	121,866	5,521,943	2.206
Norway	53,830	60,975	2,391,782	2,549
Finland	19,640	23,839	3,120,264	.764
Germany	3,061,002	3,317,271	64,903,423	5.111
Austria	496,263	534,811	28,321,088	1.888
Bosnia-Herzegovina	5,587	5,522	1,898,044	.290
Croatia-Slavonia	8,504	6,783	2,416,300	.276
Hungary	95,180	111,966	20,840,678	.537
Servia	8,337	5,000	2,911,701	.171
Roumania	6,000	9,708	6,966,000	.139
Switzerland	78,119	86,313	3,741,971	2.306
Italy	709,943	860,502	34,687,000	2,451
Spain	80,000	100,000	19,588,688	.510
United States	2,282,361	2,496,000	91,972,266	2.713
Canada	160,120	175,799	7,204,527	2.440
Australia	364,999	433,224	4,733,359	9.152
New Zealand	55,629	60,622	1,070,910	5.660

The total trades union membership of the world for 1912 stood at 12,094,490, a slight increase over the number reported for 1911, which was 11,435,498. In the above table it will be observed that the union membership during 1912 increased more rapidly in Great Britain than in Germany, the first named country having an increase of over 800,000 and the latter slightly over 256,000, giving Great Britain nearly a half million more of a trades union membership than Germany. The United States stands third, but especially having regard to its much larger population, considerably below Great Britain and Germany. The statement above printed, however, shows Australia as the most highly unionized country in the world.

General Features of the Report.

The report gives some attention to the general scheme of organization which has developed in the federations, district councils and trades and labour councils to be found in the leading industrial centres. Particulars of these various bodies are given.

An interesting chapter is given to a discussion of some leading features of the chief railway labour brotherhoods and orders, the elaborate and sometimes intricate schemes of organization which have been evolved by these bodies being dealt with at some length. Consideration is given to the duties and responsibilities placed on the various committees known under the term of "general," "grievance," "adjustment," "protective," "legislative," etc., and also to other matters of

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vital import pertaining to the leading bodies embraced in the railway group.

The feature introduced in the report for 1912 showing disbursements made during the year on account of beneficiary work of central labour organizations operating in Canada is continued in the present report. Of the 101 international organizations having local branches in the Dominion, 72 have benefit features of varying extent. The grand total of the disbursements made on account of benefits by these organizations for the last fiscal year is $14,962,705. Nearly one-half of this amount was expended in death and disability benefits. The payments on this account amounted to $7,556,876. The railway brotherhoods contributed the larger payments for death and disability benefits, the disbursements by the Brotherhood of Railroad Trainmen alone amounting to no less a sum than $2,410,985. These disbursements are, of course, for Canada and the United States together, separate figures for Canada alone not being available.

The report also serves as a directory of trade unions for the Dominion for 1914, including as it does particulars not only of every known local trade union in Canada, but also a list of all international and non-international central organizing bodies, together with the names and addresses of the chief executive officers.

SLIGHT INCREASE IN NUMBER OF TRADE DISPUTES DURING MAY.

There was a slight increase in the number of trade disputes reported to the Department of Labour during May. Ten new disputes were reported, twenty-six less than in the corresponding month of the previous year. Although the disputes occurring in May were six more than in April, industrial conditions were not seriously affected, the new disputes, for the most part, concerning but few establishments and a comparatively small number of employees. The total number of strikes in existence at the end of May was fifteen.

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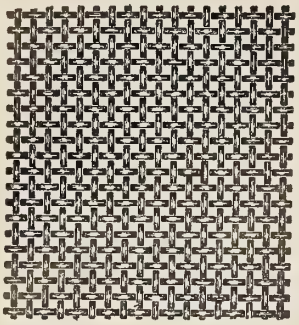
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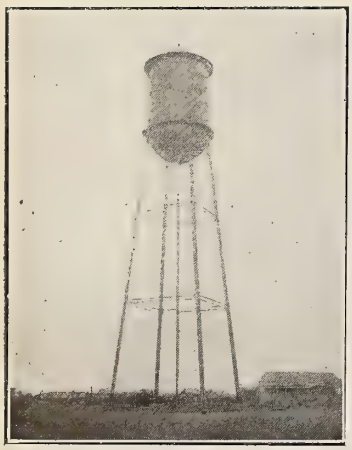
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"EMPIRE" FIRE-PROOF TILE is made of pure Manitoba Gypsum hydrated plaster bonded with fiber and made into block form.

It is used for fire-proofing of structural steel; block tile; for insulation from heat and cold; and for sound deadening.

Write for Descriptive Booklet

MANITOBA GYPSUM CO., LIMITED

WINNIPEG, MAN.

NEW MANUFACTURING COMPANIES.

The following companies have been recently incorporated in Canada for manufacturing purposes:—

Health Milk, Limited, London, Ont.	$150,000
Princess Hat Co., Limited, Toronto, Ont.	40,000
General Vending Machines, Limited, Windsor, Ont.	25,000
Johnson and Ross, Limited, Toronto, Ont.	40,000
Driftwood Lands and Timber, Limited, Toronto, Ont.	150,000
Demees Electroplating and Mfg. Co., Limited, Toronto, Ont.	40,000
Favary Tire Co., Limited, Toronto, Ont.	500,000
Canadian Expansion Bolt Co., Limited, Toronto, Ont.	40,000
Canadian Felischer Gas Co., Limited, Toronto, Ont.	40,000
La Compagnie Carette, Limitee, Quebec, Que.	99,900
The Welch Co., Limited, St. Catharines, Ont.	200,000
Beaver Bag Manufacturers, Limited, Toronto, Ont.	40,000
The Mayflower Medicine Co., Limited, Windsor, Ont.	40,000
Phoenix Engraving, Limited, Toronto, Ont.	40,000
Pneumatic Wheel Co., Limited, Toronto, Ont.	200,000
Canada Breweries, Limited, Toronto, Ont.	3,000,000
The Canadian Underwear Co., Limited, Montreal, Que.	50,000
South America Cabinet Woods, Limited, Toronto, Ont.	1,000,000
Automatic Chemical Sprinkler Co., Limited, Toronto, Ont.	100,000
La Marquise, Limited, Montreal, Que.	50,000
Blackburn Springs, Limited, Ottawa, Ont.	100,000
Federal Paper Co., Limited, Montreal, Que.	100,000
Canadian Laco-Philips Co., Limited, Montreal, Que.	25,000
The Premier Pants Mfg. Co., Limited, Montreal, Que.	50,000
Dominion Office Supply Co., Limited, Walkerville, Ont.	25,000
The Accounting and Tabulating Corporation, Limited, Montreal, Que.	4,500,000
American Oil Processes, Limited, Ottawa, Ont.	£3,500,000
The National Rubber Co., Limited, Hamilton, Ont.	500,000
The Ontario Flexotile Products, Limited, Toronto, Ont.	50,000
Canada Cut Glass Co., Limited, Toronto, Ont.	25,000
Canada Lock Co., Limited, Hamilton, Ont.	60,000
The Criterion Mfg. Co. of Toronto, Limited, Toronto, Ont.	40,000
The Conness-Till Film Co., Limited, Toronto, Ont.	50,000
Empire Oil Co., Limited, Calgary, Alta.	100,000
Federal Match Co., Limited, Calgary, Alta.	150,000
Canada Crude Oil Co., Limited, Calgary, Alta.	2,500,000
The Northern Casket Co., Limited, Calgary, Alta.	100,000
The Golden West Mfg. Co., Limited, Oak Lake, Man.	80,000
Fit-All Mfg. Co., Limited, Winnipeg, Man.	40,000
The Dunlop Pulp and Paper Mills, Limited, Selkirk, Man.	1,000,000
American Textile Machine Co., Limited, Toronto, Ont.	40,000
The Berlin Office and Fixture Co., Limited, Berlin, Ont.	60,000
Seaman and Sons Co., Limited, Sauble Falls, Ont.	70,000
The Milk Products Co. of Canada, Limited, Toronto, Ont.	200,000
Regina Linseed Oil Mills, Limited, Regina, Sask.	200,000
The Pas Clay Products Mining and Development Co., Limited, The Pas, Man.	250,000
Rankin, Hill and O'Brien, Limited, Winnipeg, Man.	60,000
Linguistic Printing and Publishing Co., Ltd., Vancouver, B.C.	50,000
Columbia Oil Co., Ltd., Vancouver, B.C.	1,000,000

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A large assortment of dry lumber always on hand on our yards, to fill orders wanted for quick shipment.

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We manufacture the "Beaver Brand" White Cedar Shingles, full count; every bundle is marked "250 shingles" and bound with iron bands; no more strings and broken bunches.

Best Shipping Facilities

Mills and yards located at Bathurst, N.B., on the beautiful Bathurst Harbor. Shipments can be made by Schooner and Steamer right from the Company docks to any port in the world, and also by rail to any part of Canada or the United States. Intercolonial Railway tracks and sidings in our yards, with trackage room for 50 cars on our own premises.

Write, Wire or Phone your orders, and ask for our monthly stock list of lumber for sale and list showing cost of Dressing.

The Bathurst Lumber Co., Ltd.

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Is a beverage that is made from the highest grade of barley, grown exclusively by the farmers of the western plains, the purest Rocky Mountain water, and the finest British Columbia hops, especially grown for us, together with the highest grade European hops "government guaranteed," made in the most modern and best equipped brewery that science and practical brains have designed, so that the product is a pure, clean, healthful drink.

Calgary Brewing & Malting Company, Limited

Calgary, Alta.

Columbia Industrial Corporation, Ltd., Vancouver, B.C.	$50,000
Automatic Springless Faucet Co., Ltd., Vancouver, B.C.	100,000
Producers Oil and Gas Co., Ltd., Calgary, Alta.	300,000
Piedmont Petroleum Products Co., Ltd., Calgary, Alta.	2,500,000
British American Standard Oil Corporation, Ltd., Calgary, Alta.	1,000,000
British Canadian Oils, Ltd., Calgary, Alta.	1,000,000
Canadian Stock Food Co., Ltd., Calgary, Alta.	250,000
Union Oil Co., Calgary, Alta.	1,000,000
Phillips-Elliott Oil and Gas Co., Ltd., Calgary, Alta.	1,000,000
Eastend Gas, Coal and Oil Co., Ltd., Regina, Sask.	100,000
Nickeland, Limited, Montreal, Que.	75,000
Ateliers Mecaniques de Sorel, Limitee, Montreal, Que.	50,000
Shawinigan Quarry and Construction Co.,, Three Rivers, Que.	80,000
The Vanstone-Reade Mfg. Co., Ltd., Oshawa, Ont.	40,000
The Canadian Automatic Fire Alarm Co., Ltd., Bracebridge, Ont.	40,000
The Dominion Clay Products Co., Ltd., Toronto, Ont.	350,000
The Union Cement Co., Ltd., Owen Sound, Ont.	200,000
National Law Book Co., Ltd., Toronto, Ont.	100,000
St. Williams Fruit Preservers, Ltd., St. Williams, Ont.	40,000
The Canadian Picture Stamp Co., Ltd., Ottawa, Ont.	40,000
Co-operative Silk Mfg. Co., Ltd., Montreal, Que.	50,000
Ladder Lake Lumber Co., Ltd., Toronto, Ont.	400,000
La Compagnie de Publication du Courrier, Limitee, Montreal, Que.	200,000
The Premier Glass Co. of Canada, Limited, Montreal, Que.	3,000,000
The Stockwell Motors, Ltd., Montreal, Que.	100,000
Canadian Hart Accumulator Co., Ltd., St. Johns, Que.	£60,000
Davie Shipbuilding and Repairing Co., Ltd., Lauzon, Que.	500,000
The Harvey National Supply and Mfg. Co., Ltd., Toronto, Ont.	50,000
The Grimsby Specialty Co., Ltd., Grimsby, Ont.	50,000
Niagara Silk Co., Ltd., Brantford, Ont.	150,000
Vitrified Clays, Ltd., Calgary, Alta.	
Pogue's Automatic Car Fenders, Ltd., New Westminster, B.C.	50,000
Dominion Motor Car Co., Ltd., Berlin, Ont.	40,000

PRICES SLIGHTLY DOWNWARD.

The Department's index number of wholesale prices stood at 136.2 for May as compared with 136.8 in April and 134.5 in April, 1913. Hogs, sheep, dairy products, fish, metals, fuel and some lines of lumber were lower in price, but grains, cattle and beef, fruits and vegetables, wool and jute showed important advances. Compared with the same month a year ago, the groups: Fish, dairy products, miscellaneous foods, metals, fuel and furs were on lower levels, but advances appeared in the groups: Grains and fodder, animals and meats, fruits and vegetables, textiles, hides, leathers and lumber.

In retail prices the chief feature of the month was a general decline in butter, but potatoes advanced in many of the cities, scarcity being reported. Eggs began to advance. The usual decline in coal in the spring occurred in several localities, and sugar was also lower.



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Manufacturers of

Aerated Waters

Soda Water

Cider

Bigelow & Hood

TRURO NOVA SCOTIA

FREIGHT CHANGES

List of Freight Schedules filed with the Board of Railway Commissioners During Month of May, 1914.

(The first column shows the old and the new numbers of the rate as it appears on the files of the Railway Commission; the second column gives the railway number. CL. stands for carload.)

Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 16 W 1854	Sup. 16 W 2975	June 11-14	Classes and commodities Port Arthur and Fort William to points west.
Sup. 2 W 1896	Sup. 2 W 3065	June 15-14	Rules and regulations at C.P. and E. & N. stations.
W 1939 cancels W 1695	W 3179 cancels W 2604	July 10-14	Lead bullion, pig lead and copper matte stations in B.C. to points in U.S.
Sup. 41 W 1720	Sup. 41 W 2650	June 12-14	Classes and commodities between Winnipeg, Brandon, Portage la Prairie and points west.
Sup. 17 W 1915	Sup. 17 W 3101	Various dates	Commodities between C.P. western line stations.
Sup. 23 W 1797	Sup. 23 W 2850	Various dates	Commodities C.P., C.N. and E. & N. stations to points in eastern Canada.
Sup. 9 W 1919	Sup. 9 W 3111	June 15-14	Switching and interswitching.
Sup. 27 W. 1806	Sup. 27 W 2866	June 24-14	Lumber, shingles, etc., coast and interior mills to points on C. P., C.N. and G.T.P. railways.
Sup. 18 W 1915	Sup. 18 W 3101	Various dates	Commodities between C.P. western line stations.
Sup. 19 W 1797	Sup. 19 W 2850	May 14-14	Commodities C.P. western lines to points in eastern Canada.
W 1937 cancels W 1904	W 3144 cancels W 3082	June 17-14	Grain and grain products C.L. stations in Alberta to Seattle, Tacoma, etc.
Sup. 4 W 1887	Sup. 4 W 3047	June 22-14	Copper commodities Grand Forks, Seattle, etc., to points in U.S. and eastern Canadian points.
Sup. 12 W 1915	Sup. 12 W 3101	Various dates	Commodities between western line stations.
Sup. 5 W 1919	Sup. 5 W 3111	May 25-14	Switching and interswitching.
Sup. 20 W 1797	Sup. 20 W 2850	Various dates	Commodities western line stations to points in eastern Canada.
Sup. 15 W 1854	Sup. 15 W 2975	May 25-14	Class and commodity rates Port Arthur, Fort William and Westfort to points west.
Sup. 6 W 1919	Sup. 6 W 3111	May 29-14	Switching and interswitching at C.P. and E. & N. stations.
Sup. 22 1797	Sup. 22 W 2850	Various dates	Commodities C.P. and C.N. stations to points in eastern Canada.
Sup. 15 W 1915	Sup. 15 W 3101	Various dates	Commodities between western line stations.
Sup. 6 W 1881	Sup. 6 3030	May 29-14	Commodities C.P. western line stations to China, Japan, etc (export).
Sup. 7 W 1919	Sup. 7 W 3111	June 2-14	Switching and interswitching.
Sup. 21 W 1797	Sup. 21 W 2850	Various dates	Commodities between C.P. western line stations.

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(*Formerly Canada Steel Co., Ltd.*) Limited

Hamilton - - Canada

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Rounds, Squares, Flats, Twisted Squares, Angles, Channels, T-Bars, Ovals, Half Ovals, Half Rounds, Bands, Agricultural Shapes, Special Sections.

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MONTREAL

AUTOMATIC SPRINKLER
PROTECTION

Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 9 W 1879	Sup. 9 W 3026	Various dates	Class and commodity rates Brandon, Portage la Prairie, Winnipeg and Port Arthur to B.C. coast points.
Sup. 8 W 1842	Sup. 8 W 2952	May 30-14	Ores and concentrates Lake ports of call to Ladysmith and Vancouver.
Sup. 13 W 1915	Sup. 13 W 3101	Various dates	Commodities between western line stations.
Sup. 4 W 1827	Sup. 4 W 2907	July 1-14	Commodities stations on western lines to points in U.S.
Sup. 7 W 1881	Sup. 7 W 3030	June 6-14	Commodities C.P. western stations to oriental ports (export).
Sup. 10 W 1879	Sup. 10 W 3026	Various dates	Classes and commodities Brandon, Winnipeg, etc., to B.C. coast points.
Sup. 27 W 1351	Sup. 27 W 1983	June 8-14	Rules and regulations governing weighing on track scales.
Sup. 4 W 1873	Sup. 4 W 3013	Various dates	Class and commodity rates between C.P. and G.T.P. and C.N. stations.
Sup. 16 W 1915	Sup. 16 W 3101	Various dates	Commodities between western line stations.
Sup. 8 W 1919	Sup. 8 W 3111	June 8-14	Switching and interswitching.
Sup. 22 E 2713	Sup. 22 E 2330	May 30-14	Commodities between C.P. stations. Reduction.
Sup. 12 E 1595	Sup. 12 E 2262	June 1- (R) July 1 (A)	Switching and interswitching at C.P. stations. Advance. Reduction.
Sup. 10 E 2560	Sup. 10 E 2167	July 1-14	Import freight St. John and W. St. John to C.P. stations. Reduction.
Sup. 11 E 2541	Sup. 11 E 2147	July 1-14	Raw sugar C.L. Montreal wharf (import) to St. Catharines, Ont., 11c. per 100 lbs. Reduction.
Sup. 23 E 2713	Sup. 23 E 2330	June 10-14 (R) July 10-14 (A)	Commodities between C.P. stations and points in Maritime Provinces. Advance. Reduction.
Sup. 18 E 2332	Sup. 18 E 1932	July 1- (R) July 11 (A)	Class and commodity rates for export traffic C.P. stations to Montreal and Quebec. Advance . Reduction.
Sup. 12 E 1675	Sup. 12 E 1262	July 1-14	Class and commodity tariff C.P. stations to Boston, Hartford and other New England points. Reissue. New rates.
Sup. 10 E 937	Sup. 10 E 528	July 1-14 (R) July 7-14 (A)	Iron and steel articles. St. John and Fairville, N.B., to C.P. stations. Advance. Reduction. Reduction.
Sup. 82 E 2559	Sup. 82 E 2166	July 9-14	Building material between C.P. stations. Reduction.
Sup. 8 E 2267	Sup. 8 E 1865	July 1-14	Class rates between C. P. stations Montreal and west thereof to and including Toronto and Sudbury. New rates.
Sup. 11 E 1285	Sup. 11 E 867	July 1-14	Iron commodities from Montreal, Highlands, etc., to C.P. stations. Reduction.



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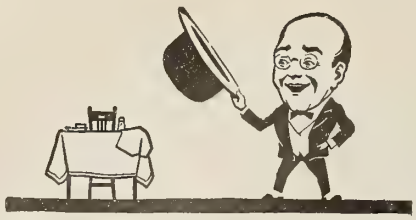
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Manufacturers and Dealers in

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Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 10 E 1691	Sup. 10 E 1278	July 8-14	Class rates C.P. stations to Halifax, export. Cancelled. Advance.
Sup. 14 E 2189	Sup. 14 E 1785	July 8-14	Commodities C.P. stations to Halifax for export cancelled. Advance.
Sup. 23 E 2133	Sup. 23 E 2529	July 11-14	Commodities C. P. stations to points in U.S. Reduction.
Sup. 13 E 2643	Sup. 13 E 2259	July 1-14 (R) July 11-14 (A)	Pig Iron C.L. between C.P. stations. Advance. Reduction.
Sup. 4 E 2751	Sup. 4 E 2372	July 15-14	Rules and regulations governing weighing of C.L. freight.
Sup. 30 E 2342	Sup. 30 E 1942	July 1-14	Commodities between C. P. stations. Reduction.
Sup. 6 E 1753	Sup. 6 E 1341	July 13-14	Class and commodity rates to points in New England.
Sup. 8 E 2284	Sup. 8 E 1883	July 1-14	Class rates applying between stations west and north of Toronto and stations east of Toronto to and including Montreal and Ottawa. Reissue. New rates.
Sup. 64 E 2559	Sup. 64 E 2166	June 15-14	Building material between C.P. stations. Reduction.
Sup. 25 E 2330	Sup. 25 E 2713	June 15-14	Commodities between C.P. stations and points in Maritime Provinces. Reduction.
Sup. 9 E 1553	Sup. 9 E 1138	July -5-14	Class rates C.P. stations to points on D. S.S. & W. and M.St.P. & S.S.M. railways. Reissue. New rates.
Sup. 26 E 2713	Sup. 26 E 2330	July 1-14	Commodities between C.P. stations and points in Maritime Provinces. Reduction.
Sup. 14 E. 2141	Sup. 14 E. 1737	June 6-14	Reshipping — stop-off and special arrangements. Reduction. Import freight Quebec.
Sup. 8 E. 2549	Sup. 8 E. 2156	May 8-14	Wharf to C.P. stations. Reduction. Import freight Montreal.
Sup. 10 E. 2541	Sup. 10 E. 2147	May 8-14	Wharf to C.P. stations. Reduction.
Sup. 18 E. 2718	Sup. 18 E. 2330	May 18-14 (R.)	Commodities C.P. stations to points in Maritime Provinces. Advance reduction.
E. 2342 Sup. 29	E. 1942 Sup. 29	May 11 (R.) June 8 (A.)	Commodities between C. P. stations. Advance reduction.
Sup. 27 E. 2359	Sup. 27 E. 1959	May 11-14	Paper commodities between C.P. stations. Reduction.
Sup. 22 E. 2529	Sup. 22 E. 2133	June 9-14	Commodities to and from points in U.S. Advance reduction.
Sup. 12 E. 2643	Sup. 12 E. 2259	May 18-14	Pig iron C.L. to Montreal and Halifax. Reduction.
Sup. 3 W. 1919	Sup. 3 W. 3111	May 6-14	Switching and interswitching at C.P. Western line stations. New rates.



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Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 10 W. 1856	Sup. 10 W. 2972	Various dates	Import rates Oriental ports to overland points in Eastern Canada.
Sup. 26 W. 1691	Sup. 26 W. 2597	May 11-14	Lime, cement, plaster, etc., between stations on C.P. Western lines.
Sup. 8 W. 1915	Sup. 8 43101	Various dates	Commodities between C. P. Western line stations.
Sup. 8 W. 1878	Sup. 7 W. 3025	June 12-14	Grain and grain products, stations in Man., Alta., and Sask. to Duluth and St. Paul.
Sup. 11 W. 1856	Sup. 11 W. 2972	Various dates	Import rates Oriental ports to overland Eastern Canadian points.
Sup. 14 W. 1855	Sup. 14 W. 2971	May 15-14	Import rates Oriental points, also proportionate rates from Vancouver to points in Western Canada.
Sup. 5 W. 1873	Sup. 5 W. 3013	Various dates	Class and commodity rates between C.P. Western line stations and stations on C.N. and G.T.P. Rys.
Sup. 4 W. 1919	Sup. 4 W. 3111	May 19-14	Switching and interswitching at C.P. Western line stations.
Sup. 9 W. 1915	Sup. 9 W. 3101	Various dates	Commodities between C. P. Western line stations.
Sup. 11 W. 1915	Sup. 11 W. 3101	Various dates	Commodities between C. P. Western line stations.

Michigan Central Railroad.

Sup. 37 1351	Sup. 37 7766	May 16-14	Wrought iron pipe C.L. Welland to points in Canada.

Pennsylvania Railroad.

G.O. 818	....	June 5-14	Hand oilers L.C.L. New Brunswick, N.J. to Bridgeburg, Ont.

Toronto, Hamilton & Buffalo Railway.

540	183	July 1-14	Iron and steel articles to points in Ontario.

Lehigh & New England Railroad.

144	....	June 13-14	Pig iron C.L. Catasauqua, Pa., to Montreal.
138	....		
147	....	May 28-14	Pig iron C.L. Catasauqua, Pa., to Guelph and Toronto, G.T.
Sup. 9 E 2646	Sup. 9 E 2262	Apr. 6-14 (R) May 4-14 (A)	Switching and interswitching at C.P. stations. Advance. Reduction.
Sup. 11 E 2643	Sup. 11 E 2259	Apr. 9-14	Pig iron C. L. Joliette to Montreal and Parry Sound to Halifax, N.S. Reduction.
E 2780 cancels E 2609	E 2402 cancels E 2221	May 5-14	Equalization allowances at C. P. stations. Advance. Reduction.
Sup. 37 E 2141	Sup. 37 E 1737	May 8-14	Reshipping, Stop - over and special arrangements. Addition.

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Canadian Pacific Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 46 E 2353	Sup. 46 E 1953	Apr. 4-14	Commodities between C. P. stations. Reduction.
Sup. 18 E 2713	Sup. 18 E 2330	Apr. 20-14	Commodities between C. P. stations and stations in the Maritime Provinces. Advance. Reduction.
Sup. 10 E 2646	Sup. 10 E 2262	Apr. 7-14	Switching and interswitching at C.P. stations. Reduction.
Sup. 1 E 2765	Sup. 1 E 2386	————	Suspension of rules governing milling in transit of grain.
Sup. 38 E 2141	Sup. 38 E 1737	Apr. 13-14	Reshipping, stop-off and special arrangements at C. P. stations. Addition.
Sup. 7 E 2412	Sup. 7 E 2012	May 11-14	Class rates from C. P. stations to points on B. & O., Penn. R. R. and P. & R. R. R. Advance. Reduction.
E 2782 cancels E 2515	E 2404 cancels 2119	May 15-14	Stop-off on lumber. Reissue. Change.
E 2783	E 2405	Apr. 20-14	Tank and structural material C. L. Sarnia to Port Moody, B.C. 70 cts. per 100 lbs. New rate.
Sup. 14 E 2570	Sup. 14 E 2178	May 1914	Commodities C. P. stations to U.S. points. Reduction.
Sup. 13 E 2189	Sup. 13 E1785	May 27-14	Commodities C. P. stations to St. John, West St. John and Halifax for export. Advance. Reduction.
Sup. 5 E 2941	Sup. 5 E 2091	May 27-14	Commodities C.P. stations to Boston, New York, etc., for export. Advance. Reduction.
Sup. 1 E 2775	Sup. 1 E 2397	Apr. 25-14	Iron and steel C. L. Three Rivers to Quebec, P.Q., 8 cts. per 100 lbs. Reduction.
Sup. 17 E 2713	Sup. 17 E 2330	Apr. 22-14	Bar iron C. L. between Montreal and St. John, N.B., 15 cts. From Montreal to Fredericton, N.B., 15 cts. per 100 lbs. Reduction.
Sup. 2 W 1915	Sup. 2 W 3101	Various dates	Commodities between stations on C. P. western lines.
Sup. 24 W 1715	Sup. 24 W 2640	Apr. 7-14	Class and commodities from Vancouver, Westminster and Victoria to points on C. P. R.
Sup. 1 W 1919	Sup. 1 W 3111	Apr. 9-14	Switching and interswitching at C. P. and E. & N. stations.
Sup. 14 W 1739	Sup. 14 W 2697	Apr. 10-14	Lumber, shingles, etc., between, Vancouver, Westminster and B. C. points, also stations on E. & N. Ry.
Sup. 9 W 1856	Sup. 9 W 2972	Various dates	Through import tariff from the Orient to stations in eastern Canada, also to European ports.
Sup. 3 W 1915	Sup. 3 W 3101	Various dates	Commodities between stations on C.P. Western lines.
Sup. 2 W 1887	Sup. 2 W 3047	May 11-14	Copper commodities from smelters in the Kootenay district to stations in the U. S.

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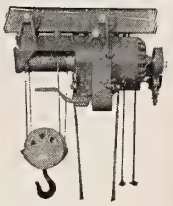
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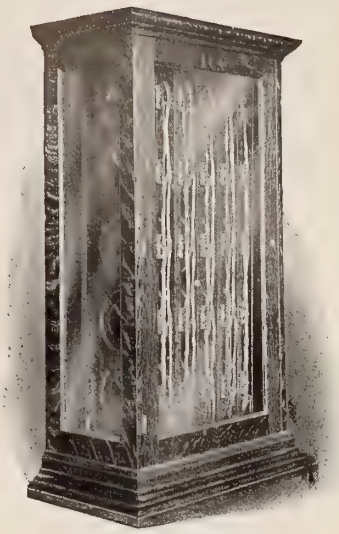
C.R.C.	R.R. No.	Effective.	Description.
Sup. 13 W. 1855	Sup. 13 W 2971	Apr. 18-14	Import and proportional tariff from Oriental ports and Vancouver to overland points in Canada.
Sup. 2 W 1685	Sup. 2 W 2604	May 18-14	Lead bullion, pig lead and copper matte stations in B. C. to points in the U. S.
W 1928 cancels W 1905	W 3142 cancels W 3084	May 22-14	Commodities between San Francisco, Oakland and stations on C. P. western lines.
Sup. 4 W 1915	Sup. 4 W 3101	Various dates	Commodities between C. P. western line stations.
Sup. 2 W. 1911	Sup. 2 W 3095	Apr. 22-14	Ores and concentrates from stations in B. C. to points in the U. S.
Sup. 2 W 1919	Sup. 2 W 3111	Apr. 23-14	Switching and interswitching at C. P. western line stations.
Sup. 17 W 1797	Sup. 17 W 2850	Various dates	Commodities from C. P. western stations to points in eastern Canada.
Sup. 7 W 1879	Sup. 7 W 3026	Various dates	Commodities between Brandon, Winnipeg, Portage la Prairie and Port Arthur and B. C. coast points.

Grand Trunk Railway.

Sup. 12 E 2681	Sup. 12 I 140	July 1-14	Import Class and commodity rates, Montreal harbor to G.T. stations. Reduction.
Sup. 25 E 2677	Sup. 25 S 88	July 8-14	Local switching at G.T. stations. Advance.
Sup. 35 E 2855	Sup. 35 C.Y. 31	July 15-14	Sash weights Toronto to Montreal C.L. 17½ cets. per 100 lbs. Reduction.
Sup. 37 E 2855	Sup. 37 C.Y. 31	June 15-14	Iron and steel castings and sash weights Montreal to various points. Reduction.
Sup. 8 E 2709	Sup. 8 C.R. 145	June 15-14	Weighing of C. L. freight at track scales. Reduction.
2923 cancels 1635	A 18 cancels A 8	June 8-14	Class and commodity arbitraries between Maritime Province Junctions and stations on connecting lines. Advance reduction.
Sup. 56 E 1240	Sup. 56 E 12	June 8-14	Class and commodity rates to Montreal for export. Reduction.
Sup. 27 E 2855	Sup. 27 C.Y. 31	June. 13-14	G. T. stations and to and from connecting lines. Advance reduction.
Sup. 29 E. 2855	Sup. 29 C.Y. 31	May 15-14	Wrought iron pipe C. L. Welland to points in Ontario. Reduction.
Sup. 30 E. 2855	Sup. 30 C.Y. 31	June 15-14	Tin cans C.L. Hamilton to points on H.G. & B. Ry. Advance.
Sup. 14 E. 2783	Sup. 14 C.I. 146	May 18-14	Pig iron C.L. Hamilton, Midland and Port Colborne to Montreal. Reduction.

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How many minutes a day are wasted in this way or in having a foreman come to you to report on his work? While he is doing that he is unproductive. And his workmen have not his supervision. An important matter, is it not?

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HAMILTON - - CANADA

Grand Trunk Railway.

C.R.C.	R.R. No.	Effective.	Description.
Sup. 7 E. 2758	Sup. 7 C.U. 75	June 18-14	Buffalo, Black Rock and Suspension Bridge to points in Canada. Advance reduction.
Sup. 18 E. 2684	Sup. 18 C.U. 72	June 18-14	Commodities G.T. stations to points in U. S. Reduction advance.
E. 2931 cancels. E. 2918	C.F. 263 cancels C.F. 262	June 17-14	Hardwood flooring C.L. Midland to Fort William, Port Arthur and Westport, Ont., 28c. per 100 lbs. Advance.
Sup. 16 E. 2457	Sup. 16 S. 86	May 27-14	Interswitching. Reduction.
Sup. 53 E. 150	Sup. 53 G.B.Y. 5	May 27-14	Iron commodities from Milton, Ont. Reduction.
E. 2922 cancels E. 2871	S. 99 cancels S. 96	June 1-14	Terminal arrangements at Guelph. Re-issue.
Sup. 11 E 2696	Sup. 11 I 144	July 1-14	Import mdse. Portland to G. T. stations. Reduction.
Sup. 33 E 2655	Sup. 33 C.Y. 31	July 10-14	Commodities between G. T. stations. Advance. Reduction.
Sup. 25 E 2374	Sup. 25 C.R. 111	June 24-14	Reshipping, stop - off and special arrangements at G.T. stations.
E 2938 Cancels E 961	R 5 Cancels R 2	June 18-14	Class and commodity rates between G.T. stations and ports of call on Muskoka lakes, Lake of Bays, etc. Reissue.
Sup. 8 E. 2758	Sup. 8 C.U. 75	July 8-14	Commodities Buffalo, Black Rock and Suspension Bridge and points in Canada. Reissue. Advance.
Sup. 15 E 2783	Sup. 15 C.I. 146	June 9-14	Pig iron C.L. Port Colborne to Smith's Falls. Reduction.

New York Central and Hudson River R. R.

3101 cancels 2193	A 29937 cancels A 21754	July 1-14	Binder twine C.L. Auburn, N.Y., to points in Canada.
3103 cancels 3012	A 29939 cancels A 29161	July 1-14	Commodities New York to Montreal and Montreal points.
3104 cancels 3011	A 29940 cancels A 29160	July 1-14	Commodities New York to Montreal and Montreal points.
3105 cancels 2661	A 29941 cancels A 25457	July 1-14	Commodities New York to Montreal and Montreal points.
3098 cancels 2293	A 29933 cancels A 22475	July 1-14	Iron and steel articles Syracuse to Montreal and Montreal points.
3100 cancels 2407	A 29936 cancels A 23511	July 1-14	Agricultural implements Auburn, N.Y., to points in Canada.

Baltimore and Ohio Railroad.

Sup. 18 851		July 1-14	Billets, pig iron, etc., C.L. B. & O. stations points in Canada. Reissue. Advance.
Sup. 34 1054	....	June 15-14	B. & O. stations to points in Canada.

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Baltimore & Ohio Southwestern R. R.

C.R.C.	R.R.No.	Effective.	Description.
Sup. 28 228	Sup. 28 H2413-A	June 15-14	Class and commodity tariff B. & O. stations to points in Canada.

Central Railroad of New Jersey.

798	——	June 12-14	Hemp and sisal C.L. points in New Jersey to Brantford and Welland, Ont.

Lake Shore and Michigan Southern Railway.

Sup. 15 251		July 15-14	Class and commodity rates L.S. & M.S. stations to points in Canada.

Pere Marquette Railroad.

Sup. 4 5358	Sup. 4 1757	July 13-14	Commodities between P.M. stations in Canada. Reduction. Advance.

Chesapeake and Ohio Railway.

184 cancels 182		July 21-14	Pig iron C.L. C. & O. stations to Toronto, Ont.

Philadelphia and Reading Railway.

526 cancels 511		July 1-14	Skelp iron C.L. P. & R. stations to points in Canada.

Michigan Central Railroad.

Sup. 12 2049	Sup. 12 9353	July 1-14	Commodities between M.C. stations in Canada, also from C.W. and L.E. and Essex Term. Ry. to various points.
Sup. 31 1751	Sup. 31 8764	July 15-14	Commodities Buffalo, Black Rock and Suspension Bridge to points in Canada.
Sup. 10 2049	Sup. 10 G.F.D.9353	May 25-14	Commodities between points in Canada. Reduction.
Sup. 30 1751	Sup. 30 8764	July 1-14	Commodities Buffalo, Black Rock and Suspension Bridge to points in Canada. Advance. Reduction.
Sup. 6 E 2549	Sup. 6 E 2156	Apr. 28-14	Import freight Quebec wharf to stations on C.P.R.
Sup. 7 E 2541	Sup. 7 E 2147	Apr. 28-14	Import freight Montreal wharf to stations on C.P.R.
E 1685 cancels E 1564	E 2393 cancels E 2203	Apr. 30-14	Nitrate of soda c.l. Three Rivers to points in U.S.
E 2774	E 2396	May 5-14	Class rates C.P. and G. H. and P. stations to points on M.C. and P.M. Railways.
Sup. 36 E 2141	Sup. 36 E 1737	May 1-14	Reshipping, stop-over and special arrangements at C.P. stations.
E 2775	E 2397	Apr. 15-14	Commodity rates between Montreal and Quebec and intermediate water points.
Sup. 18 E 2570	Sup. 18 E 2178	May 4-14	Commodities C.P. stations and connecting lines to U.S. points.

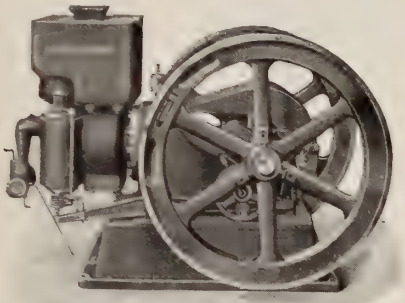
New York, Chicago & St. Louis R.R.

Sup. 10 161	——	May 1-14	Iron and steel N.Y. and St. L. stations to points in Canada.

GASOLINE ENGINES MASSEY-HARRIS DIRECT-CONNECTED PUMPS

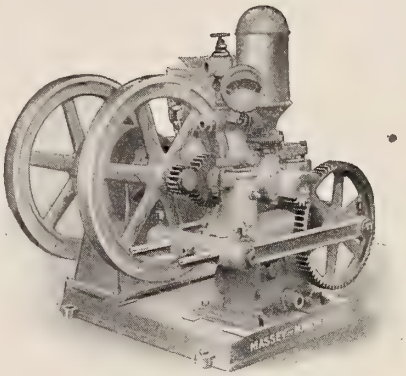
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Their high efficiency, coupled with their economy of operation and durability, combine to make Massey-Harris Engines, without exception, the most reliable and satisfactory on the market to-day.



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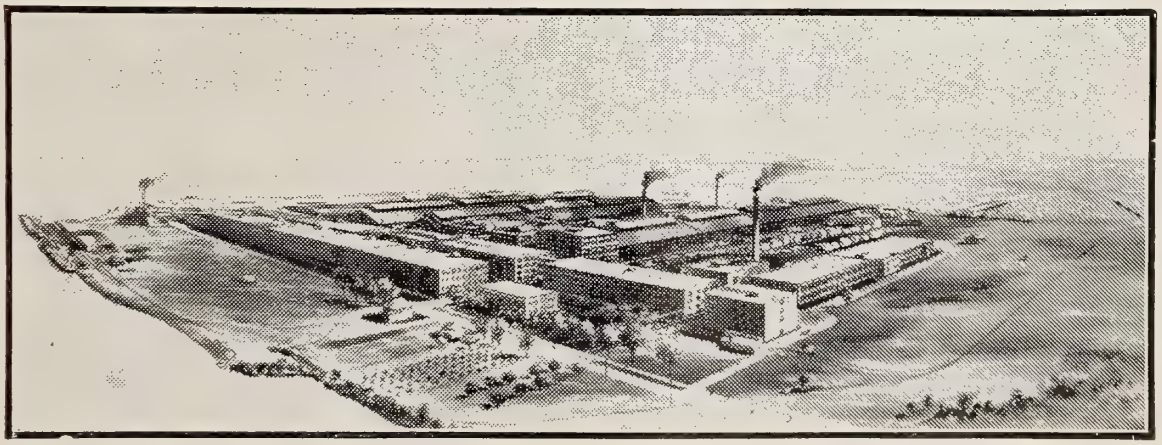
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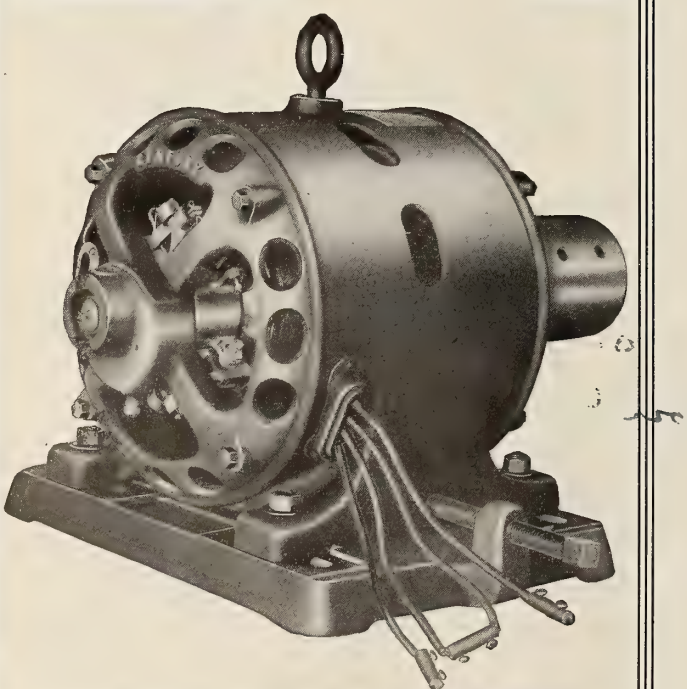
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TRADE ENQUIRIES

NOTE.—For further information regarding any enquiry mentioned under this heading or the names of enquirers, apply by numbers to the Secretary, at Toronto.

67. **Iron Tubing.**—Several South American firms inquire for iron tubing.

68. **Iron Tubing.**—A South American firm inquires for iron tubing from 1-2 inch to 3 inches.

69. **Veneer Panelling.**—A London firm wishes for the addresses of Canadian firms who can contract to supply birch or maple veneer panelling in large quantities.

70. **Wheelbarrows.**—Several firms in South America inquire for wheelbarrows.

71. **Wicker Furniture.**—A firm in South America makes inquiry for wicker furniture.

72. **Asbestos Roofing.**—Three firms in South America inquire for asbestos roofing.

73. **Tools.**—Several South American firms inquire for tools.

74. **Screws.**—A South American firm inquires for screws.

75. **Ploughs.**—Three South American firms inquire for ploughs.

76. **Motor Car Accessories.**—Several South American firms inquire for motor car accessories.

77. **Split-wood Pulleys.**—Three South American firms inquire for split-wood pulleys.

78. **Sanitary Articles.**—A firm in Columbia, South America, inquires for sanitary articles.

79. **Metal Beds.**—Two South American firms inquire for metal beds.

80. **Iron.**—Two South American firms inquire for iron.

81. **Cart Springs.**—A Columbia, South America, firm inquires for cart springs.

82. **Enamelled Ware.**—A Columbia, South America, firm inquires for enamelled ware.

83. **General Hardware.**—A Columbia, South America, firm inquires for general hardware.

84. **Paints and Varnishes.**—Two South American firms inquire for paints and varnishes.

85. **Leather.**—A South American firm inquires for leather.

86. **Rubber Hose.**—A South American firm inquires for rubber hose.

87. **Brush Hooks.**—A South American firm enquires for brush hooks.

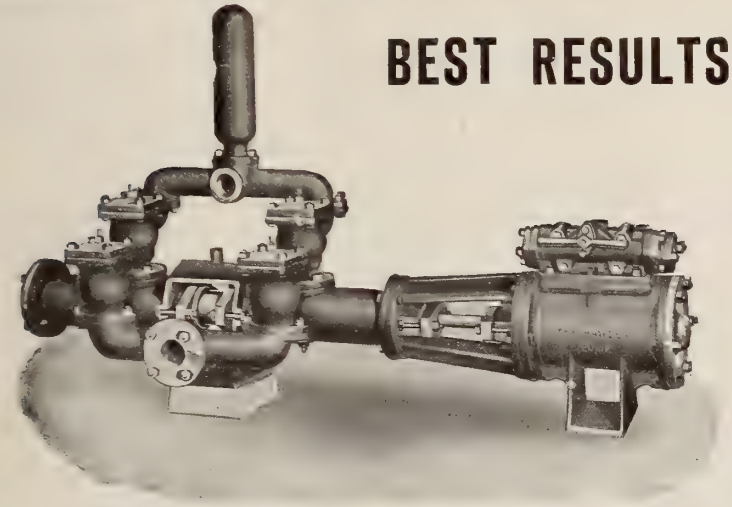
88. **Roofing.**—Four South American firms inquire for roofing.

89. **Pumps.**—South American firms inquire for pumps.

BAWDEN PUMPS

BAWDEN NEVER SHORT STROKE PUMPS

GREATEST EFFICIENCY AND BEST RESULTS



BECAUSE

They **Are Operated** by the Bawden Patent Steam Moved Piston Valve, which insures **a Full Stroke** under all conditions. There are **No Springs, Tappetts,** or **Packing** in the steam end, nothing to go wrong or get out of adjustment.

The Valve Seats on water valves are heavy, driven in and held solid with brass stoppers through covers.

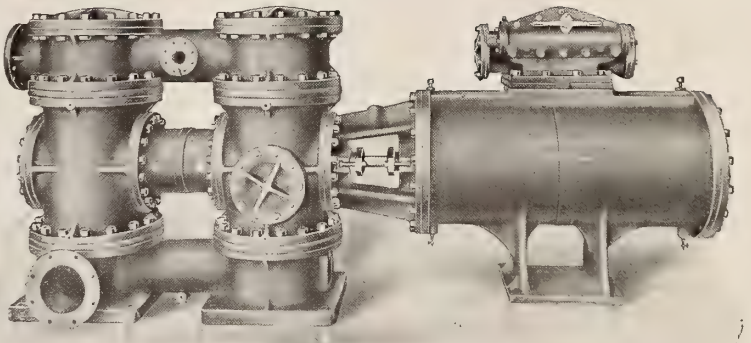
They are **Designed** so that all parts are accessible and **Built** as good as any pump in the world.

Tests Proved More than Claims of Bawden Pumps on Toronto Fire Tug

The Bawden Compound Pump installed by us on the steamer "Clarke" for fire service on the Toronto water front proved the Bawden Pumps to be all and more than has been claimed for them regarding efficiency and service.

The Pump has :

14in. diam. High-Pressure Steam Cylinder.
24in. diam. Low-Pressure Steam Cylinder.
12in. diam. Water Cylinder.
20in. Stroke.
And is of the Group Valve Type.



On the tests made by Fire Chief Thompson at Centre Island on May 13th, the pump was operated by 80 H.P. boiler carrying 150 lbs. steam pressure and the pump delivered 1,000 U.S. Gallons per minute against 200 lbs. pressure, and with two 750 feet lengths of 2½in. fire hose fitted with 1¼in. nozzles delivered two streams 124 feet high.

The results given, as in all Bawden installations, proved Bawden pumps to be all that is claimed for them.

THE BAWDEN MACHINE CO., LTD.

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CUT FASTER LAST LONGER
Than any other wheels on the market

Tell us the service you want performed and we will supply you with an abraser that will save you time, money and worry.

Send for one of our catalogues and tell us your troubles. We do the rest. :: :: :: ::

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Hamilton :: :: :: Ontario

90. **Furniture.**—Three South American firms inquire for furniture—household and other.

91. **Small Corundum Wheels.**—A firm in Colombia, South America, inquires for small corundum wheels.

92. **Cement.**—Two South American firms inquire for cement.

93. **Cotton Duck.**—Two South American firms inquire for cotton duck.

94. **Typewriter Supplies.**—A firm in Colombia inquires for typewriter supplies.

95. **Asbestos Fibre.**—A Japanese company who manufacture asbestos tiles wishes to get into touch with manufacturers and exporters of asbestos fibre in Canada.

96. **Canned Fruits and Vegetables.**—A Shropshire firm inquires for exporters of the foregoing.

97. **Canned Fruits and Vegetables.**—A Staffordshire firm inquires for exporters of canned fruits and vegetables.

98. **Asbestos Packing.**—South American firm inquires for asbestos packing.

99. **Boots and Shoes.**—A South American firm inquires for boots and shoes.

100. **Harvesting Machinery.**—A South American firm inquires for harvesting machinery.

101. **Phaeton.**—A South American firm inquires for a covered phaeton to hold six people.

102. **Beds.**—A South American firm inquires for beds.

103. **Furniture.**—An architects' and builders' indentor at Cape Town desires to be placed in touch with Canadian manufacturers of church, school, hall and office furniture, prepared to undertake export business.

104. **Woodenware.**—A large exporting firm in Newfoundland asks for names of Canadian manufacturers of washboards, clothes pins, etc. Correspondents should at once quote lowest f.o.b. prices Montreal.

105. **Bags (Jute).**—Canadian manufacturers of bags (jute) desirous of extending their trade to Cuba should correspond with Havana brokers.

106. **Foodstuffs.**—A leading broker in Havana is open to represent Canadian exporters of foodstuffs. Bank reference offered.

107. **Timber.**—A Newfoundland lumber firm asks to be put in touch with British Columbia suppliers of timber and firm boards, etc.

108. **Canvas Cots and Folding Tables.**—An Australian merchant at present in England wishes to purchase canvas folding cots and also folding tables for shipment to Melbourne, and invites offers f.o.b. Montreal, from Canadian manufacturers.

COTTON & WOOL WASTE

Made in Canada by

The Dominion Waste Mfg. Co. Limited, Toronto

BRANDS:

Cotton Polishing: Cream, White.

White Cotton Wiping: XXX Extra, X Grand, XLCR, X Empire, X Press.

Colored Cotton Wiping: Fancy, Lion, Standard, Popular, Keen.

Wool Packing: Arrow, Axle, Anvil, Anchor.

Washed Cotton Wipers: Select White, Light Colored, Dark Colored.

Packed in Compressed Bales
500, 200, 100, 50, 25, 10, 5 lbs.

No liquid dope or clay used in any of our brands—nothing but threads.

SOLE SELLING AGENTS

Scythes & Company Limited

Manufacturers and Jobbers

TORONTO
MONTREAL

Also headquarters for Cordage, Twines, Cotton Duck Oiled Clothing, Etc.

WASHED COTTON WIPERS



TANGLEFOOT

The Sanitary Fly Destroyer—Non-Poisonous

Gets 50,000,000,000 Flies a year—vastly more than all other means combined

Poisons are Dangerous!

MACHINE FINISHED AND MACHINE GLAZED . . . **KRAFT PAPERS**

MANUFACTURED BY

The New Brunswick Pulp and Paper Company, Limited

Springfield Mills :: Millerton, New Brunswick

AGENCIES AT HALIFAX, MONTREAL, TORONTO, WINNIPEG, REGINA, VANCOUVER

BAKER'S COCOA



Has Sterling Merit

MADE IN CANADA

From carefully selected high-grade cocoa beans, skilfully blended, prepared by a perfect mechanical process, without the use of chemicals or dyes. It contains no added potash, possesses a delicious natural flavor, and is of great food value.

WALTER BAKER & CO. LIMITED

Established 1780

Montreal, Canada **Dorchester, Mass.**

The

Don Valley Paper Co.

Limited

Manufacturers of

High Grade Sulphite

and

Manilla Envelope Papers

Colored Specialties

Colored Cover Papers

Bristols, Posters, Sulphite

and

Manilla Tag, Etc.

Dominion Bank Building

TORONTO

109. **Linseed.**—A Glasgow seed merchant asks to be put in touch with Canadian shippers. Sample as to quality desired at Department of Trade and Commerce, Ottawa.

110. **Wood, Box Shooks.**—A Durban firm of importers asks for samples and prices with full particulars on Canadian-made box shooks.

111. **Labor-Saving Machinery.**—A South African manufacturer of jams and canned goods asks for catalogues with prices and full particulars re Canadian-made labor-saving machinery.

112. **Furniture.**—A South African importer asks for catalogues, price lists and full information on Canadian-made furniture of all kinds.

113. **Carriage Building Material.**—A South African importer asks for correspondence and full particulars on Canadian carriage building material.

114. **Vehicles, Motors.**—A South African importer asks to be placed in touch with Canadian exporters of motor vehicles.

115. **Duck for Tents.**—A South African importer asks for samples and prices on Canadian duck.

116. **Hardware.**—Catalogues and prices are asked for by a South African firm of importers.

117. **Paints.**—A South African importer asks for price lists and full particulars on Canadian paints.

118. **Wood, Box-Shooks.**—Inquiry is made by a South African importer for price lists and samples on Canadian-made box-shooks.

119. **Handles, Hammer and Axe.**—A South African importer asks for catalogues with f.o.b. prices on Canadian-made handles of all kinds.

120. **Dairy Utensils.**—Inquiry is made for catalogues with f.o.b. prices on Canadian-made dairy utensils by a South African importer.

121. **Furniture.**—A South African firm of importers asks for catalogues and prices on Canadian-made furniture of all kinds.

122. **Paper Bags.**—A South African importer asks for samples and prices on Canadian-made paper bags.

123. **Organs.**—A South African importer asks for catalogues and f.o.b. prices on Canadian-made organs.

124. **Woodenware.**—Inquiry is made by a South African importer for catalogues and price lists on Canadian-made woodenware of all kinds.

CANADIAN MACHINERY FOR THE UNITED STATES.

We like to record victorious excursions of Canadian manufacturers into the United States. In May Mr. Charles M. Murray of the Chapman Double Ball Bearing Co., visited Pittsburg and secured a contract to equip the plant of the United States Aluminum Co. at Messina Falls.

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Industrial Canada

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